EXHIBIT D

FOLDER 1 PT 2

APPENDIX A

Omega Protein shall:

1. **Immediately upon issuance of this Order,** develop and submit to PRO standard operating procedures to ensure that reporting violations do not reoccur at Omega Protein.

2. **Within thirty days of the issuance of this Order,** submit to the PRO a diagnostic evaluation (DE) of the Omega Protein wastewater treatment system. A state registered professional engineer must conduct the DE. The DE shall be used to determine if the facility, as built, can meet the NPDES permit limits at design flow. The State registered professional engineer shall submit a stamped letter to the Department certifying that the facility can or cannot meet permit limits at design flow as built.

3. If the DE indicates that construction of an upgrade is required for the facility to meet permit limits, then **sixty days from the issuance of the Order,** submit to the PRO a preliminary engineering report and an implementation schedule for the upgrade construction. The schedule, once approved by the PRO, shall become an enforceable part of this Order.

OMEGA PROTEIN

FAX

TO: Denise Mosca

FAX:

FROM: John Barnes

PHONE:

DATE: 10/20/00 10:37 AM

PAGES: 7 (including this form)

SUBJECT:

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pages reports

Fri AM

8024350985

1

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE
4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
http://www.deq.state.va.us

Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

October 18, 2000

Mr. Steve Jones, Facility Manager
Omega Protein Incorporated
P.O. Box 175
Reedville, VA 22539

Privileged Settlement Communication

RE: Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Jones:

Enclosed is a proposed Consent Order for Omega Protein. Please review the draft and provide me with any comments by November 2, 2000.

If you have any questions about the Order, please contact me at (804) 527-5093.

Sincerely

Frank E. Lupini
Enforcement Specialist, Sr.

cc: Omega Protein File

DRAFT
STATE WATER CONTROL BOARD ENFORCEMENT ACTION
SPECIAL ORDER BY CONSENT
ISSUED TO
OMEGA PROTEIN
VPDES VA0003867

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code §§ 10.1-1185 and 62.1-44.15(8a) and (8d), between the State Water Control Board and Omega Protein, for the purpose of resolving certain violations of environmental law and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Va. Code" means the Code of Virginia (1950), as amended.

2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.

4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Special Order.

6. "Omega Protein" means Omega Protein Incorporated, certified to do business in Virginia and its affiliates, partners, subsidiaries, and parents.

7. "Facility" means the Omega Protein Sewage Treatment Plant located in Reedville, Virginia.

8. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.

9. "Permit" means VPDES permit No. VA0003867, which became effective December 17, 1997 and expires December 17, 2002.

10. "O&M" means operations and maintenance.

SECTION C: Findings of Fact and Conclusions of Law

1. Omega Protein owns and operates a wastewater treatment facility in Northumberland County, Virginia. This facility is the subject of VPDES permit VA0003867, which allows Omega Protein to discharge treated wastewater into Cockrell's Creek and the Chesapeake Bay in strict compliance with terms, limitations and requirements outlined in the permit.

2. On April 28, 1999, DEQ executed a Consent Order with Omega for failing to report an unpermitted discharge. Omega paid a $7,500 civil penalty and the Order was closed in March 2000. Since the Order has closed, DEQ has noted numerous violations of the State Water Control Law.

3. On April 26, 2000, DEQ issued NOV No. 00-03-PRO-001 to Omega citing them for an unpermitted discharge created by sandblasting a vessel in the creek without the proper BMPs in place. In addition, Omega was cited for failure to meet the reporting requirements in its permit by 1) not reporting an unusual discharge which occurred after an equipment failure on July 7, 1999, 2) late submittals of BMP reporting, 3) failure to submit quarterly progress reports, and 4) improper toxicity testing.

4. On August 1, 2000, DEQ issued NOV No. W2000-05-K-001 to Omega citing them for late submittal of a quarterly progress report and total suspended solids violations in May 2000.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of the authority granted it in Va. Code § 62.1-44.15(8a) and (8d), orders Omega Protein, and Omega Protein agrees, to perform the actions described in Appendix A of this Order. In addition, the Board orders Omega Protein, and Omega Protein voluntarily agrees, to pay a civil charge of $21,600 within 30 days of the effective date of the

Order in settlement of the violations cited in this Order. Payment shall be made by check payable to the "Treasurer of Virginia", delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 10150
Richmond, Virginia 23240

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of Omega Protein, for good cause shown by Omega Protein, or on its own motion after notice and opportunity to be heard.

2. This Order only addresses and resolves those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including, but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility as may be authorized by law; and/or (3) taking subsequent action to enforce the terms of this order. Nothing herein shall affect appropriate enforcement actions by other federal, state, or local regulatory authority, whether or not arising out of the same or similar facts.

3. For purposes of this Order and subsequent actions with respect to this Order, Omega Protein admits the jurisdictional allegations, factual findings, and conclusions of law contained herein.

4. Omega Protein consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Omega Protein declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 9-6.14:1 *et seq.*, and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.

6. Failure by Omega Protein to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Omega Protein shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Omega Protein shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Omega Protein shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

   a. the reasons for the delay or noncompliance;

   b. the projected duration of any such delay or noncompliance;

   c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

   d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

   Failure to so notify the Regional Director within 24 hours of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Omega Protein. Notwithstanding the foregoing, Omega Protein agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until the Director or Board terminates the Order in his or its sole discretion upon 30 days written notice to Omega Protein. Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Omega Protein from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. By its signature below, Omega Protein voluntarily agrees to the issuance of this Order.

APPENDIX A

Omega Protein shall:

1. **Immediately upon issuance of this Order,** develop and submit to PRO standard operating procedures to ensure that reporting violations do not reoccur at Omega Protein.

2. **Within thirty days of the issuance of this Order,** submit to the PRO a diagnostic evaluation (DE) of the Omega Protein wastewater treatment system. A state registered professional engineer must conduct the DE. The DE shall be used to determine if the facility, as built, can meet the NPDES permit limits at design flow. The State registered professional engineer shall submit a stamped letter to the Department certifying that the facility can or cannot meet permit limits at design flow as built.

3. If the DE indicates that construction of an upgrade is required for the facility to meet permit limits, then **sixty days from the issuance of the Order,** submit to the PRO a preliminary engineering report and an implementation schedule for the upgrade construction. The schedule, once approved by the PRO, shall become an enforceable part of this Order.

And it is so ORDERED this _____day of _____, 2000.

_____
Dennis H. Treacy, Director
Department of Environmental Quality

Omega Protein voluntarily agrees to the issuance of this Order.

By: _____

Date: _____

Commonwealth of Virginia

City/County of _____

The foregoing document was signed and acknowledged before me this ___ day of _____, 2000, by _____, who is
(name)

_____ of Omega Protein, on behalf of the Corporation.
(title)

_____
Notary Public

My commission expires: _____.

BIOLOGICAL MONITORING, INC.
1800 Kraft Drive, Suite 101 • Blacksburg, VA 24060 • Tel 540-953-2821 • Fax 540-951-1481
Visit Our Website: www.biomon.com

October 30, 2000

John Barnes
P.O. Box 175
Reedville, VA 2539

RE: Consent Order for Improper Toxicity Testing

Dear Mr. Barnes:

On April 26, 2000 Omega Protein received a Notice of Violation (NOV) citing issued by the VADEQ. Among other things, improper toxicity testing was specified in the citing. Specifically the VADEQ stated that the toxicity testing were conducted improperly based on the following quote from the NOV citing. "Permit condition for WET limit specifies that 20 organisms must be used, however, 10 were used; and, the permit specifies that 4 replicates are used, and only 2 were used."

Biological Monitoring, Inc.(BMI) takes issue with these conclusions . As pointed out in the meeting with the VADEQ on May 15, 2000, the correct number of organisms per exposure concentration (20) was properly used. With the respect to the number of replicates, BMI acknowledges that 2 replicates were used rather than 4 replicates as stated in the permit. However, this requirement is unique to this permit. Most permitees are required to follow the methods listed in EPA/600.4-90/027F. BMI generally follows this method which states a minimum of 10 organisms per replicate, not 5 as stated in the permit.

It may further be argued that the use of the extra two replicates would not have made a difference in this instance due to complete organism mortality in the 100% effluent concentration at 24 hours.

I trust the information stated meets your needs. BMI appreciates the opportunity to provide your group with our services.

Sincerely,

Anthony Smith
Laboratory Manager

OMEGA PROTEIN

Memorandum

To: CAMILE COOK

CC: STEVE JONES

From: LYELL JETT

Date: 11/21/00

Re: **REQUESTED INFORMATION**

ENCLOSED YOU WILL FIND THE INFORMATION THAT WAS REQUESTED DURING OUR INSPECTION LAST MONTH. I THINK I HAVE EVERYTHING THAT YOU REQUESTED, IF NOT PLEASE LET ME KNOW

ZAPATA PROTEIN
REEDVILLE, VIRGNIA
DMR REPORTING

	SCRUBBER 001			LAGOON 002			EVAP. 004			EVAP. 005			
DATE	pH	TEMP C	FLOW	pH	TEMP C	FLOW	pH	TEMP C	FLOW	pH	TEMP C	FLOW	
10/01/00	7.32	28	3042000	7.44	22	254100				7.32	28	3042000	6.6
10/02/00				7.71	21	241400							
10/03/00				7.63	25	28000							
10/04/00	7.2	28	608400	7.59	26	137509				7.2	28	1053000	1.6
10/05/00	7.14	33	4867200	7.46	27	40100	7.14	33	1102815	7.14	33	8424000	14
10/06/00	7.14	32	4867200	7.47	26	187700				7.14	32	8424000	13
10/07/00	7.05	28	1216000	7.53	27	296400				7.05	28	4212000	5.
10/08/00				7.54	21	142000							
10/09/00				7.66	20	150600							
10/10/00				7.55	17	88000							
10/11/00				7.46	17	54800							
10/12/00				7.24	16	97600							
10/13/00	7.27	24	4461000	7.19	17	165800				7.27	24	7722000	12
10/14/00	7.32	27	4867200	7.21	18	166900				7.32	27	8424000	13
10/15/00	7.65	25	3853200	7.28	19	98000				7.65	25	8424000	12
10/16/00				7.27	21	325600							
10/17/00	7.68	30	2230800	7.32	22	106900				7.68	30	3512000	5.
10/18/00	7.06	25	2433600	7.44	22	271000				7.06	25	4212000	6.
10/19/00	7.34	24	811200	7.62	20	245100	7.34	24	3966800	7.34	24	1404000	6
10/20/00	7.75	22	1419600	7.72	19	206600	7.95	22	3526080	7.95	22	2457000	7.
10/21/00	7.36	26	2028000	7.7	19	181000	7.36	26	5289120	7.36	26	3510000	10
10/22/00	8.23	27	4867200	7.78	22	192100				8.23	27	8424000	13
10/23/00	7.14	26	4867200	8.05	20	222500				7.14	26	8424000	13
10/24/00	7.17	26	4867200	7.87	17	217600				7.17	26	8424000	13
10/25/00	7.21	28	1825000	8.01	19	225700				7.21	28	1825000	3.
10/26/00	7.21	29	4867200	7.93	19	215700				7.28	29	8424000	
10/27/00	7.21	29	4867200	7.8	19	345700				7.21	24	8424000	12
10/28/00	7.86	26	4867200	7.9	21	424400				7.86	26	8424000	13
10/29/00	7.72	25	1014000	7.9	15	267700				7.22	25	4212000	5.
10/30/00				8.01	14	187800							
10/31/00				7.9	12	53200							

2.8 avg.

Gilbert W. Clifford & Associates, Inc.

150 C Olde Greenwich Dr., Fredericksburg, Va. 22404
(540) 898-2143

OMEGA PROTEIN, INC.
WATER QUALITY DATA
2000

Date	Station	Time	Field pH	Effluent Flow (MGD)	BOD-5 (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)	NH3-N (mg/L)	TKN-N (mg/L)	NO2-N (mg/L)	NO3-N (mg/L)	Total-N (mg/L)	Total PO4-P (mg/L)	Cyanide (mg/L)
10/04	R1	0730	7.20	0.608	6.4	8.8	<5							
10/05	R1	0725	7.14	4.867	6.4	5.2	<5							
	R4	0725	7.14	1.103				3.81						
	R5	0725	7.14	8.424				8.46						
10/06	R1	0740	7.14	4.867	6.2	7.0	<5	5.04	9.24	0.300	0.172	9.71	0.185	
10/10	R2	0725	7.55	0.088	119	340.0	<5	99.7						
10/13	R1	0735	7.27	4.461	12.8	14.3	5.2	8.68	12.9	0.290	0.229	13.4	0.181	
10/14	R1	0730	7.32	4.867	15.6	15.2	<5							
10/15	R1	0635	7.65	3.853	16.4	11.9	<5							
10/17	R1	0710	7.68	2.231	32.9	37.6	6.3							
	R2	0805	7.32	0.107				98.6						
10/18	R1	0735	7.06	2.434	9.2	10.8	<5							
10/19	R1	0735	7.34	0.811	9.2	12.0	<5							
	R4	0735	7.34	3.967				1.01	3.81	<.01	0.118	3.94	0.155	
10/20	R2	0755	7.72	0.207	69.2	24.0	<5	116						
10/23	R1	0725	7.14	4.867	3.4	10.0	<5							
	R5	0725	7.14	8.424				3.3	3.49	<.01	0.185	3.69	0.141	
10/24	R1	0710	7.17	4.867	6.4	6.9	<5							
10/25	R1	0650	7.21	1.825	7.2	8.1	<5							

All analyses were performed in accordance with "Standard Methods", eighteenth edition or EPA Procedure Manual, 1983.

*No results reported, due to holding time for BOD5 being exceeded.

Station Descriptions:
R1- Scrubbers Discharge #001
R2- Wastetreatment Lagoon Discharge #002
R3- Chesapeake bay discharge #003
R4- Evaporator Cooling Water Discharge #004
R5- Evaporator Cooling Water Discharge #005
R6- Combined R1, R4 & R5 #006

Method Codes:

BOD-5	5210-B	NH3-N	4500-NH3 B&E	N03-N	4500-N03 E, 352.1
TSS	2540-D	TKN-N	4500-N org B	Tot. P04-F	4500-P E
O&G	5520-B	NO2-N	4500-N02 B		

Gilbert W. Clifford & Associates, Inc.

150 C Olde Greenwich Dr., Fredericksburg, Va. 22404
(540) 898-2143

OMEGA PROTEIN, INC.
WATER QUALITY DATA
2000

Date	Station	Time	Field pH	Effluent Flow (MGD)	BOD-5 (mg/L)	TSS (mg/L)	Oil & Grease (mg/L)	NH3-N (mg/L)	TKN-N (mg/L)	NO2-N (mg/L)	NO3-N (mg/L)	Total-N (mg/L)	Total PO4-P (mg/L)
10/04	Cockrell Creek					9.4							
10/05	Cockrell Creek					8.9							
10/06	Cockrell Creek					8.7							
10/13	Cockrell Creek					10.2							
10/14	Cockrell Creek					13.7							
10/15	Cockrell Creek					9.9							
10/17	Cockrell Creek					38.9							
10/18	Cockrell Creek					10.8							
10/19	Cockrell Creek					12.2							
10/23	Cockrell Creek					9.4							
10/24	Cockrell Creek					9.5							
10/25	Cockrell Creek					32							

All analyses were performed in accordance with "Standard Methods", eighteenth edition or EPA Procedure Manual, 1983.
*No results reported, due to holding time for BOD5 being exceeded.

Station Descriptions:

R1- Scrubbers Discharge #001
R2- Wastetreatment Lagoon Discharge #002
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R5- Evaporator Cooling Water Discharge #005
R6- Combined R1, R4 & R5 #006

Method Codes:

BOD-5	5210-B	NH3-N	4500-NH3 B&E	N03-N	4500-N03 E, 352.1
TSS	2540-D	TKN-N	4500-N org B	Tot. P04-P	4500-P E
O&G	5520-B	NO2-N	4500-N02 B		

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF E. RONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Industrial Major 1: /1999

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Omega Protein, Inc.
ADDRESS P. O. Box 175
Reedville VA 22539

FACILITY Omega Protein

VA0003867	001
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	00	10	1	TO	00	10	31

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Kilmarnock Regional Office
P.O Box 669
429 East Church Street
Kilmarnock VA 22482
(804) 435-3181

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	3.274	4.867		*********	*********	*********		-	CONT	EST
	PERMIT REQUIREMENT	NL	NL	MGD	*********	*********	*********			CONT	EST
002 PH	REPORTED	*********	*********		7.05	*********	8.23		0	1/D	GRAB
	PERMIT REQUIREMENT	*********	*********		6.	*********	9.0	SU		3D/W	GRAB
003 BOD5	REPORTED	134	287		*********	*********	*********		0	3D/W	24HC
	PERMIT REQUIREMENT	1755	3142	KG/D	*********	*********	*********			3D/W	24HC
004 TOTAL SUS. SOLIDS	REPORTED	147	318		*********	*********	*********		0	3D/W	24HC
	PERMIT REQUIREMENT	655	1609	KG/D	*********	*********	*********			3D/W	24HC
012 TOTAL PHOSPHORUS	REPORTED	3.24	3.41		*********	.183	.185		0	2/M	24HC
	PERMIT REQUIREMENT	37.85	NL	KG/D	*********	2.	NL	MG/L		2/M	24HC
013 TOTAL NITROGEN	REPORTED	203	226		*********	11.6	13.4		-	2/M	24HC
	PERMIT REQUIREMENT	NL	NL	KG/D	*********	NL	NL	MG/L		2/M	24HC
080 TEMPERATURE	REPORTED	*********	*********		*********	*********	33		0	1/D	IS
	PERMIT REQUIREMENT	*********	*********		*********	*********	50.	C		1/DAY	IS
500 OIL & GREASE	REPORTED	65.2	92.1		*********	*********	*********			3D/W	GRAB
	PERMIT REQUIREMENT	372	685	KG/D	*********	*********	*********			3D/W	GRAB

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M. G.)	TOTAL BOD5 (K. G.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C.&1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

OPERATOR IN RESPONSIBLE CHARGE			DATE		
TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
TYPED OR PRINTED NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Industrial Major 12 1999

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Kilmarnock Regional Office
P.O Box 669
429 East Church Street
Kilmarnock VA 22482
(804) 435-3181

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Omega Protein, Inc.
ADDRESS P. O. Box 175
Reedville VA 22539

FACILITY Omega Protein

VA0003867	002
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	00	10	1	TO	00	10	31

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	.188	.424		*********	*********	*********		-	CONT	MEAS
	PERMIT REQUIREMENT	NL	NL	MGD	*********	*********	*********			CONT	MEAS
002 PH	REPORTED	*********	*********		7.19	*********	8.05		0	1/D	GRAB
	PERMIT REQUIREMENT	*********	*********		6.	*********	9.0	SU		2D/W	GRAB
003 BOD5	REPORTED	46.9	54.2		*********	*********	*********		0	2/M	24HC
	PERMIT REQUIREMENT	468	837	KG/D	*********	*********	*********			2/M	24HC
004 TOTAL SUS. SOLIDS	REPORTED	66	113		*********	*********	*********		0	2/M	24HC
	PERMIT REQUIREMENT	171	422	KG/D	*********	*********	*********			2/M	24HC
080 TEMPERATURE	REPORTED	*********	*********		*********	20	27		-	1/D	IS
	PERMIT REQUIREMENT	*********	*********		*********	NL	NL	C		1/DAY	IS
379 TOXICITY FINAL, ACUTE	REPORTED	*********	*********			*********	*********				
	PERMIT REQUIREMENT	*********	*********		100% EFF	*********	*********	%		1/3M	24HC
500 OIL & GREASE	REPORTED	2.80	3.92		*********	*********	*********		0	2/M	GRAB
	PERMIT REQUIREMENT	27.6	50.9	KG/D	*********	*********	*********			2/M	GRAB
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M. G.)	TOTAL BOD5 (K. G.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. & 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

OPERATOR IN RESPONSIBLE CHARGE			DATE		
TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
TYPED OR PRINTED NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

DEQ NPDES FORM 5

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF EN' ONMENTAL QUALITY

NATIONAL POLLUTANT DISCHA..E ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Industrial Major 12/ 999

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Kilmarnock Regional Office
P.O Box 669
429 East Church Street
Kilmarnock VA 22482
(804) 435-3181

PERMITTEE NA ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Omega Protein, Inc.
ADDRESS P. O. Box 175
Reedville VA 22539

FACILITY Omega Protein

VA0003867	003
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	00	10	1	TO	00	10	31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED				*********	*********	*********				
	PERMIT REQUIREMENT	NL	NL	MGD	*********	*********	*********			CONT	EST
002 PH	REPORTED	*********	*********			*********					
	PERMIT REQUIREMENT	*********	*********		6.	*********	9.	SU		2/M	GRAB
003 BOD5	REPORTED				*********	*********	*********				
	PERMIT REQUIREMENT	4296	7710	KG/D	*********	*********	*********			2/M	24HC
004 TOTAL SUS.SOLIDS	REPORTED				*********	*********	*********				
	PERMIT REQUIREMENT	114	282	KG/D	*********	*********	*********			2/M	24HC
007 DIS. OXYGEN	REPORTED	*********	*********				*********				
	PERMIT REQUIREMENT	*********	*********		NL	NL	*********	MG/L		1/DAY	GRAB
080 TEMPERATURE	REPORTED	*********	*********		*********						
	PERMIT REQUIREMENT	*********	*********		*********	NL	NL	C		1/DAY	IS
500 OIL & GREASE	REPORTED				*********	*********	*********				
	PERMIT REQUIREMENT	426	784	KG/D	*********	*********	*********			2/M	GRAB
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

NO DISCHARGE

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M. G.)	TOTAL BOD5 (K. G.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

OPERATOR IN RESPONSIBLE CHARGE			DATE		
TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
TYPED OR PRINTED NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

DEQ NPDES FORM 5

COMMONWEALTH OF VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Industrial Major 12/ 999

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Kilmarnock Regional Office
P.O Box 669
429 East Church Street
Kilmarnock VA 22482
(804) 435-3181

PERMITTEE NAME, ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Omega Protein, Inc.
ADDRESS P. O. Box 175
Reedville VA 22539

FACILITY Omega Protein

VA0003867	004
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	00	10	1	TO	00	10	31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	3.471	5.289		*********	*********	*********		-	CONT	EST
	PERMIT REQUIREMENT	NL	NL	MGD	*********	*********	*********			CONT	EST
002 PH	REPORTED	*********	*********		7.14	*********	7.95		0	1/D	GRAB
	PERMIT REQUIREMENT	*********	*********		6.	*********	9.	SU		5D/W	GRAB
012 TOTAL PHOSPHORUS	REPORTED	2.33	2.33		*********	.155	.155		0	1/3M	24HC
	PERMIT REQUIREMENT	93.9	NL	KG/D	*********	2.	NL	MG/L		1/3M	24HC
013 TOTAL NITROGEN	REPORTED	59.2	59.2		*********	3.94	3.94		-	1/3M	24HC
	PERMIT REQUIREMENT	NL	NL	KG/D	*********	NL	NL	MG/L		1/3M	24HC
039 AMMONIA AS N	REPORTED	*********	*********		*********	2.41	3.81		-	2/M	24HC
	PERMIT REQUIREMENT	*********	*********		*********	NL	NL	MG/L		2/M	24HC
080 TEMPERATURE	REPORTED	*********	*********		*********	26.3	33		0	1/D	IS
	PERMIT REQUIREMENT	*********	*********		*********	NL	45	C		1/DAY	IS
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M. G.)	TOTAL BODS (K. G.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. &1319. (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

OPERATOR IN RESPONSIBLE CHARGE			DATE		
TYPED OR PRINTED NAME	SIGNATURE	CERTIFICATE NO.	YEAR	MO.	DAY
PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
TYPED OR PRINTED NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

DEQ NPDES FORM 5

PERMITTEE N /ADDRESS (INCLUDE
FACILITY NAM..OCATION IF DIFFERENT)

NAME Omega Protein, Inc.
ADDRESS P. O. Box 175
Reedville VA 22539

FACILITY Omega Protein

DEPARTMENT OF EN''RONMENTAL QUALITY
NATIONAL POLLUTANT DISCH.. ..GE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Industrial Major 12 '1999

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Kilmarnock Regional Office
P.O Box 669
429 East Church Street
Kilmarnock VA 22482
(804) 435-3181

VA0003867	005
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	00	10	1	TO	00	10	31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	5.781	8.424		*********	*********	*********		-	CONT	EST
	PERMIT REQUIREMENT	NL	NL	MGD	*********	*********	*********			CONT	EST
002 PH	REPORTED	*********	*********		7.05	*********	8.23		0.	1/D	GRAB
	PERMIT REQUIREMENT	*********	*********		6.	*********	9.0	SU		5D/W	GRAB
012 TOTAL PHOSPHORUS	REPORTED	4.50	4.50		*********	.141	.141		0	1/3M	24HC
	PERMIT REQUIREMENT	93.9	NL	KG/D	*********	2.	NL	MG/L		1/3M	24HC
013 TOTAL NITROGEN	REPORTED	118	118		*********	3.69	3.69		-	1/3M	24HC
	PERMIT REQUIREMENT	NL	NL	KG/D	*********	NL	NL	MG/L		1/3M	24HC
039 AMMONIA AS N	REPORTED	*********	*********		*********	5.88	8.46		-	2/M	24HC
	PERMIT REQUIREMENT	*********	*********		*********	NL	NL	MG/L		2/M	24HC
080 TEMPERATURE	REPORTED	*********	*********		*********	26.8	33		0	1/D	IS
	PERMIT REQUIREMENT	*********	*********		*********	NL	45	C		1/DAY	IS
	REPORTED										
	PERMIT REQUIREMENT										
	REPORTED										
	PERMIT REQUIREMENT										

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M. G.)	TOTAL BOD5 (K. G.)

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. & 1001 AND 33 U.S.C. &1319 (Penalties under these statutes may include fines up to $10,000 and/or maximum imprisonment of between 6 months and 5 years.)

OPERATOR IN RESPONSIBLE CHARGE			DATE		
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PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
TYPED OR PRINTED NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

DEQ NPDES FORM 5

PERMITTEE NAME/ADDRESS (INCLUDE FACILITY NAME/LOCATION IF DIFFERENT)

NAME Omega Protein, Inc.
ADDRESS P. O. Box 175
Reedville VA 22539

FACILITY Omega Protein

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Industrial Major 1: /1999

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Kilmarnock Regional Office
P.O Box 669
429 East Church Street
Kilmarnock VA 22482
(804) 435-3181

VA0003867	006
PERMIT NUMBER	DISCHARGE NUMBER

MONITORING PERIOD

	YEAR	MO	DAY		YEAR	MO	DAY
FROM	00	10	1	TO	00	10	31

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS BEFORE COMPLETING THIS FORM.

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS			
001 FLOW	REPORTED	9.716	14.394		*********	*********	*********		-	CONT	EST
	PERMIT REQUIREMENT	NL	NL	MGD	*********	*********	*********			CONT	EST
002 PH	REPORTED	*********	*********		7.05	*********	8.23		0	1/D	GRAB
	PERMIT REQUIREMENT	*********	*********		6.	*********	9.	SU		3D/W	GRAB
003 BOD5	REPORTED	383	785		*********	*********	*********		0	3D/W	24HC
	PERMIT REQUIREMENT	1755	3142	KG/D	*********	*********	*********			3D/W	24HC
004 TOTAL SUS.SOLIDS	REPORTED	417	817		*********	*********	*********		0	3D/W	24HC
	PERMIT REQUIREMENT	655	1609	KG/D	*********	*********	*********			3D/W	24HC
012 TOTAL PHOSPHORUS	REPORTED	7.1 8.83	9.31		*********	.166 .183	.185		0	2/M	24HC
	PERMIT REQUIREMENT	178.4	NL	KG/D	*********	2.	NL	MG/L		2/M	24HC
013 TOTAL NITROGEN	REPORTED	346 553	618		*********	7.69 11.6	13.4		-	2/M	24HC
	PERMIT REQUIREMENT	NL	NL	KG/D	*********	NL	NL	MG/L		2/M	24HC
080 TEMPERATURE	REPORTED	*********	*********		*********	*********	33		0	1/D	IS
	PERMIT REQUIREMENT	*********	*********		*********	*********	45.	C		1/DAY	IS
500 OIL & GREASE	REPORTED	186	272		*********	*********	*********		0	3D/W	GRAB
	PERMIT REQUIREMENT	372	685	KG/D	*********	*********	*********			3D/W	GRAB

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

BYPASSES AND OVERFLOWS	TOTAL OCCURRENCES	TOTAL FLOW (M. G.)	TOTAL BOD5 (K. G.)

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PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		TELEPHONE			
TYPED OR PRINTED NAME	SIGNATURE	AREA CODE NUMBER	YEAR	MO.	DAY

DEQ NPDES FORM 5

ZAPATA PROTEIN
REEDVILLE, VIRGNIA
DMR REPORTING

	21 SCRUBBER 001			31 LAGOON 002			4 EVAP. 004			21 EVAP. 005		
DATE	pH	TEMP C	FLOW	pH	TEMP C	FLOW	pH	TEMP C	FLOW	pH	TEMP C	FLOW
10/01/00	7.32	28	3042000	7.44	22	254100				7.32	28	3042000
10/02/00				7.71	21	241400						
10/03/00				7.63	25	28000						
10/04/00	7.2	28	608400	7.59	26	137509				7.2	28	1053000
10/05/00	7.14	33	4867200	7.46	27	40100	7.14	33	1102815	7.14	33	8424000
10/06/00	7.14	32	4867200	7.47	26	187700				7.14	32	8424000
10/07/00	7.05	28	1216000	7.53	27	296400				7.05	28	4212000
10/08/00				7.54	21	142000						
10/09/00				7.66	20	150600						
10/10/00				7.55	17	88000						
10/11/00				7.46	17	54800						
10/12/00				7.24	16	97600						
10/13/00	7.27	24	4461000	7.19	17	165800				7.27	24	7722000
10/14/00	7.32	27	4867200	7.21	18	166900				7.32	27	8424000
10/15/00	7.65	25	3853200	7.28	19	98000				7.65	25	8424000
10/16/00				7.27	21	325600						
10/17/00	7.68	30	2230800	7.32	22	106900				7.68	30	3512000
10/18/00	7.06	25	2433600	7.44	22	271000				7.06	25	4212000
10/19/00	7.34	24	811200	7.62	20	245100	7.34	24	3966800	7.34	24	1404000
10/20/00	7.75	22	1419600	7.72	19	206600	7.95	22	3526080	7.95	22	2457000
10/21/00	7.36	26	2028000	7.7	19	181000	7.36	26	5289120	7.36	26	3510000
10/22/00	8.23	27	4867200	7.78	22	192100				8.23	27	8424000
10/23/00	7.14	26	4867200	8.05	20	222500				7.14	[illegible]	8424000
10/24/00	7.17	26	4867200	7.87	17	217600				7.17	26	8424000
10/25/00	7.21	28	1825000	8.01	19	225700				7.21	28	1825000
10/26/00	7.21	29	4867200	7.93	19	215700				7.28	29	8424000
10/27/00	7.21	29	4867200	7.8	19	345700				7.21	24	8424000
10/28/00	7.66	26	4867200	7.9	21	424400				7.66	26	8424000
10/29/00	7.72	25	1014000	7.9	15	267700				7.22	25	4212000
10/30/00				8.01	14	187800						
10/31/00				7.9	12	53200						
TOTAL	155.03	568	68.75	236.18	620	5.838	29.79	105	13.885	154.8	563	121.401
AVG.	7.38	27	3.274	7.62	20	.188	7.45	26.3	3.471	7.37	26.8	5.781
MIN.	7.05	22	.608	7.19	12	.028	7.14	22	1.103	7.05	22	1.053
MAX.	8.23	33	4.867	8.05	27	.424	7.95	33	5.289	8.23	33	8.424

Omega Protein, Inc
VPDES Permit #VA0003867

Month of OCTOBER, 2000

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	AMM (mg/L)	Temp C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	AMM (mg/L)	Temp C	pH (SU)	Salinity ppt
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25	1330	3.5	7.8	0.170	19	6.6	14.5	1340	3.7	8.0	0.143	18.5	6.5	14.6
26														
27														
28														
29														
30														
31														

Name of Vessel Shearwater

Name of Sampler Andy Hall

Omega Protein, Inc
VPDES Permit #VA0000386 7

Month of OCTOBER, 2000

Chesapeake Bay Water Quality Monitoring Data

	Predischarge							After Discharge						
Date	Time of Sample	BOD (mg/L)	DO (mg/L)	AMM (mg/L)	Temp C	pH SU	Salinity ppt	Time of Sample	BOD (mg/L)	DO (mg/L)	AMM (mg/L)	Temp C	pH (SU)	Salinity ppt
1														
2														
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														
23														
24														
25	2000	4.1	8.0	0.120	18	6.8	14.6	2020	11.6	7.9	0.181	18	6.0	14.6
26														
27														
28														
29														
30														
31														

Name of Vessel LANCASTER

Name of Sampler Andy Hall

gilbert w. clifford & associates, inc.

P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID# ____
Client Omega Protein, Inc.
Contact Person Lyell Jett
Mailing Address P.O. Box 175
Reedville, VA 22539-0175
Telephone No. 804-453-4211

LABORATORY INFORMATION

Sample ID# [illegible]
Method of Shipment [illegible]
No. of containers received [illegible]

Received by	[illegible signature]	Date/Time 10/26 / 8:26
Relinquished by	[illegible signature]	Date/Time 10-26 / 8:25
Received by	[illegible signature]	Date/Time 10/26 / 10:21
Relinquished by	[illegible signature]	Date/Time 10/26 / 11:20
Received by	[illegible signature]	Date/Time 10/27/00 / 08:00 am
Relinquished by		Date/Time /
Released from lab by		Date/Time /

SAMPLE COLLECTION INFORMATION

Location refrigeration water
Date/Time 10-25
Grab/Composite (Grab circled)
Collected By Andy Hall
Collected For NPDES
(NPDES Monitoring etc.)
Sample Type
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. ____ pH

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other ____
Person Notified ____

gilbert w. clifford & associates, inc.

P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID# ______

Client Omega Protein, Inc [illegible]

Contact Person Lyell Jett

Mailing Address P.O. Box 175

Reedville, Virginia 22539-0175

Telephone No. (804)453-42[illegible]

LABORATORY INFORMATION

Sample ID# 00-9091-9110

Method of Shipment [illegible]

No. of containers received 1

Received by Eric Benedict — Date/Time 10/25 7:30 a.m.

Relinquished by JR Hall — Date/Time 10-25-00 7:30

Received by R Eubanks — Date/Time 10/25 11:30 a.m.

Relinquished by Eric Benedict — Date/Time 10-25-00 11:30 a.m.

Received by W. Z. Wright — Date/Time 10-26-00 0800

Relinquished by ______ Date/Time ___/___

Released from lab by ______ Date/Time ___/___

SAMPLE COLLECTION INFORMATION

Location Omega Protein

Date/Time 10-25-00 6:50

Grab/Composite

Collected By JR Hall

Collected For NPDES

(NPDES Monitoring etc.)

Sample Type ______

Water (first draw tap, distribution, source water, well)

Wastewater (influent, effluent, soil, sludge)

NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 13.8 pH

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container __Leaked/Broken in transit __Exceeds holding time __not preserved __other______

Person Notified ______

gilbert w. clifford & associates, inc.
P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID# ____
Client: Omega Protein, Inc.
Contact Person: Lyell Jett
Mailing Address: P.O. Box 175
Reedville, VA 22539-0175
Telephone No.: (804)453-4211

SAMPLE COLLECTION INFORMATION

Location: Omega Wastewater
Date/Time: 10-24-00 9:10
Grab/Composite: ____
Collected By: [illegible]
Collected For: NPDES
(NPDES Monitoring etc.)
Sample Type: ____
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.9 pH

LABORATORY INFORMATION

Sample ID# 00-9077 7DS
Method of Shipment: Courier
No. of containers received: 1

Received by	[illegible]	Date/Time	10-24-00 10:01 AM
Relinquished by	[illegible]	Date/Time	10-24-00 10:00
Received by	R. E[illegible]	Date/Time	10/24 11:14 AM
Relinquished by	[illegible]	Date/Time	10-24 11:17 AM
Received by	W. R. Wright	Date/Time	10-25-00 08:00
Relinquished by		Date/Time	/
Released from lab by		Date/Time	/

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container __Leaked/Broken in transit __Exceeds holding time __not preserved __other____
Person Notified ____

gilbert w. clifford & associates, inc.

P.O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID#
Client Omega Protein, Inc.
Contact Person Lyell Jett
Mailing Address P.O. Box 475
Reedville, VA 22539-0475
Telephone No. (804) 453-4211

LABORATORY INFORMATION

Sample ID# 00-904 - 1106
Method of Shipment Courier
No. of containers received 3

Received by Sue Lowdell
Relinquished by J.R. Hall
Received by K. Eggleston Jr.
Relinquished by Sue Lowdell
Received by W. L. Wright
Relinquished by
Released from lab by

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-23-00
Grab/Composite 1:30
Collected By J.R. Hall
Collected For VPDES
(NPDES Monitoring etc.)
Sample Type
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.6 pH

Date/Time 10-23-00 9:30 AM
Date/Time 10-23-00 9:30
Date/Time 10/23/00 11:45 AM
Date/Time 10-23-00 11:45
Date/Time 10-24-00 0800
Date/Time /
Date/Time /

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other
Person Notified

gilbert w. clifford & associates, inc.

P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink

PWS ID# _____
Client Omega Protein, Inc.
Contact Person Lyell Jett
Mailing Address P.O. Box 175
Reedville, VA 22539-0175
Telephone No. 804-453-4218

LABORATORY INFORMATION

Sample ID# 00-902
Method of Shipment Courier
No. of containers received 2

Received by _____
Relinquished by _____
Received by _____
Relinquished by _____
Received by _____
Relinquished by _____
Released from lab by _____

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-20-00 9:55
Grab/Composite _____
Collected By JR Hall
Collected For VPDES
(NPDES Monitoring etc.)
Sample Type _____
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.9 pH

Date/Time 10/20/0 9:34
Date/Time 10-20-0 9:32
Date/Time 11/20/0 11:25
Date/Time 10-20-0 11:25
Date/Time 10-21-00 10:10
Date/Time / /
Date/Time / /

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other _____
Person Notified _____

gilbert w. clifford & associates, inc.

P.O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID#
Client Omega Protein, Inc.
Contact Person Lyell Jett
Mailing Address P.O. Box [illegible]
[illegible]
Telephone No. 804 [illegible]

LABORATORY INFORMATION

Sample ID# 00-899-3701
Method of Shipment Courier
No. of containers received 4

Received by [signature]
Relinquished by [signature]
Received by [signature]
Relinquished by [signature]
Received by [signature]
Relinquished by
Released from lab by

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-19-00 - 2:35
Grab/Composite
Collected By JB Hall
Collected For NPDES
(NPDES Monitoring etc.)
Sample Type
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.7 pH

Date/Time 10-19-00 4:40 p.m.
Date/Time 10-19-00 9:40 A.M.
Date/Time 10/20/00 11:29
Date/Time 10-19-00 11:29
Date/Time 10-20-00 0800
Date/Time /
Date/Time /

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other
Person Notified

gilbert w. clifford & associates, inc.

P.O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink

PWS ID# _____
Client Omega Protein, Inc.
Contact Person Lyell [illegible]
Mailing Address P.O. Box 175
Reedville, VA 22539-0175
Telephone No. (804) 453-[illegible]

LABORATORY INFORMATION

Sample ID# 00[illegible]
Method of Shipment [illegible]
No. of containers received 3

Received by [signature]
Relinquished by [signature]
Received by [signature]
Relinquished by [signature]
Received by [signature]
Relinquished by _____
Released from lab by _____

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-18-00 - 9:35
Grab/Composite 1:2
Collected By JR Hall
Collected For IV POES
(NPDES Monitoring etc.)
Sample Type:
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. _____ pH

Date/Time 10-18-9 9:36
Date/Time 10-18-00 9:35
Date/Time 10/18/1054
Date/Time 10/18/1054
Date/Time 10-19-00 0800
Date/Time _____
Date/Time _____

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other
Person Notified _____

gilbert w. clifford & associates, inc.
P.O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID#: ______
Client: Omega Protein, Inc.
Contact Person: Lyall Jett
Mailing Address: P.O. Box 175
Reedville, VA 22539-0175
Telephone No.: (804)453-42[illegible]

LABORATORY INFORMATION

Sample ID#: 00-882 — 884
Method of Shipment: Courier
No. of containers received: 4

Received by: [illegible]
Relinquished by: [illegible]
Received by: [illegible]
Relinquished by: [illegible]
Received by: [illegible]
Relinquished by: ______
Released from lab by: ______

SAMPLE COLLECTION INFORMATION

Location: Omega Protein
Date/Time: 10-17-00 — 7:10
Grab/Composite: [illegible]
Collected By: [illegible]
Collected For: ______
(NPDES Monitoring etc.)
Sample Type: NPDES
(Water (first draw tap, distribution, source water, well)
(Waste water (influent, effluent) soil, sludge)

NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less.

1.6 pH

Date/Time: 10-17 9:37
Date/Time: 10-17 9:35
Date/Time: 10/17 11:22
Date/Time: 10-17 11:21
Date/Time: 10-18-00 0800
Date/Time: __ / __
Date/Time: __ / __

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other ______

Person Notified ______

gilbert w. clifford & associates, inc.
P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID# ______
Client: Omega Prote[illegible]
Contact Person: Ly[illegible]
Mailing Address: P. O. Box 175
[illegible] VA 22539-0175
Telephone No. (804) [illegible]

SAMPLE COLLECTION INFORMATION

Location: Omega Protein
Date/Time: 10-15- 8:35 AM
Grab/Composite: [illegible]
Collected By: JR Hall
Collected For: NPDES
(NPDES Monitoring etc.)

Sample Type ______
Water (first draw, tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)

NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.6 pH

LABORATORY INFORMATION

Sample ID# ______
Method of Shipment ______
No. of containers received ______

Received by	[illegible]	Date/Time	10-15 / [illegible]
Relinquished by	JR Hall	Date/Time	10-15 / 2:30 pm
Received by		Date/Time	10-[illegible] /
Relinquished by		Date/Time	/
Received by		Date/Time	/
Relinquished by		Date/Time	/
Released from lab by		Date/Time	/

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other______

Person Notified ______

gilbert w. clifford & associates, inc.

P.O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID#
Client [illegible]
Contact Person Lyell Jarr[illegible]
Mailing Address P.O. Box 175
Reedville, VA 22539-0175
Telephone No. 804-453-4211

LABORATORY INFORMATION

Sample ID#
Method of Shipment
No. of containers received

Received by	[illegible signature]	Date/Time 10-13 / 9:51
Relinquished by	JRHall	Date/Time 10-13 / 9:50
Received by	[illegible signature]	Date/Time 10/13 / 11:29
Relinquished by	[illegible signature]	Date/Time 10-13 / 10:21
Received by	[illegible]	Date/Time 10/14 / 1140
Relinquished by		Date/Time /
Released from lab by		Date/Time /

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-13-00 7:35
Grab / Composite (circled: Composite)
Collected By JRHall
Collected For NPDES
(NPDES Monitoring etc.)
Sample Type
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge) (circled: Wastewater, effluent)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.6 pH

REQUESTED ANALYSES:

–

gilbert w. clifford & associates, inc.
P.O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID# ____
Client Omega Protein, Inc.
Contact Person Lyell Jett
Mailing Address P.O. Box 175
Reedville, VA 22539-0175
Telephone No. 804-453-4211

LABORATORY INFORMATION

Sample ID# 00-3107
Method of Shipment
No. of containers received 2

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-10- 7:25
(Grab) Composite
Collected By JR Hall
Collected For NPDES
(NPDES Monitoring etc.)
Sample Type
_ Water (first draw tap, distribution, source water, well)
_ Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.8 pH

Received by [illegible signature]	Date/Time 10-10-00/9:46
Relinquished by JR Hall	Date/Time 10-10-00/9:45
Received by [illegible signature]	Date/Time 10/10/00/1057
Relinquished by [illegible signature]	Date/Time 10-10-00/1059
Received by [illegible signature]	Date/Time 10-11-00/0800
Relinquished by	Date/Time /
Released from lab by	Date/Time /

REQUESTED ANALYSES:

Sample Deviations: _Insufficient Data _Insufficient Quantity _Improper Container
_Leaked/Broken in transit _Exceeds holding time _not preserved _other ____
Person Notified ____

gilbert w. clifford & associates, inc.

P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID# _____
Client [redacted]
Contact Person Lyell Jett
Mailing Address P. O. Box [redacted] 175
[redacted] Reedville, VA 22539-0175
Telephone No. 804-453-[redacted]

LABORATORY INFORMATION

Sample ID# [redacted]
Method of Shipment [redacted]
No. of containers received [redacted]

Received by [redacted]
Relinquished by [redacted]
Received by [redacted]
Relinquished by [redacted]
Received by [redacted]
Relinquished by [redacted]
Released from lab by [redacted]

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-6-00 - 9:40
Grab/Composite _____
Collected By JB Hall
Collected For IVP DES
(NPDES Monitoring etc.)
Sample Type _____
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent, soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. _____ pH

Date/Time	10/6/9:40
Date/Time	10-6/9:40
Date/Time	10-6/1104
Date/Time	10-6/11:45
Date/Time	10-7-00/0930
Date/Time	/
Date/Time	/

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other _____
Person Notified _____

gilbert w. clifford & associates, inc.

P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink

PWS ID#
Client
Contact Person
Mailing Address
Telephone No.

LABORATORY INFORMATION

Sample ID#
Method of Shipment
No. of containers received

Received by
Relinquished by
Received by
Relinquished by
Received by
Relinquished by
Released from lab by

SAMPLE COLLECTION INFORMATION

Location: Omega Protein
Date/Time: 10-5-00 7:25
Grab/Composite:
Collected By:
Collected For: VPDES
(NPDES Monitoring etc.)

Sample Type
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent) soil, sludge)

NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. ___ pH

Date/Time 10-5 / 9:05
Date/Time 10-5-1 9:08
Date/Time 10/5 / 11:05
Date/Time 10-5 / 11:15
Date/Time 10-6-00 0800
Date/Time /
Date/Time /

REQUESTED ANALYSES:

Sample Deviations: __Insufficient Data __Insufficient Quantity __Improper Container
__Leaked/Broken in transit __Exceeds holding time __not preserved __other
Person Notified

gilbert w. clifford & associates, inc.

P. O. Box 781 / 150-C Olde Greenwich Drive
Fredericksburg, Virginia 22404
(540) 898-2115

CHAIN OF CUSTODY RECORD

Note:
Must be filled out in ink.

PWS ID#
Client Omega Protein, Inc.
Contact Person Lyell Jett
Mailing Address P.O. Box 175
Reedville, VA 22539-0175
Telephone No. 804-453-4211

LABORATORY INFORMATION

Sample ID# 80-850-851
Method of Shipment Courier
No. of containers received 3

Received by
Relinquished by
Received by
Relinquished by
Received by
Relinquished by
Released from lab by

SAMPLE COLLECTION INFORMATION

Location Omega Protein
Date/Time 10-4-00 7:30
Grab/Composite Grab
Collected By JR Hall
Collected For NPDES
(NPDES Monitoring etc.)
Sample Type
Water (first draw tap, distribution, source water, well)
Wastewater (influent, effluent) soil, sludge)
NOTE: If an acid preservative is added to sample, field pH must be recorded to show pH is 2 or less. 1.6 pH

Date/Time 10-4 / 9:35
Date/Time 10-11 / 9:30
Date/Time 10/4 9:11 am
Date/Time 10-4 / 11:08
Date/Time 10-5-00 0800
Date/Time /
Date/Time /

REQUESTED ANALYSES:

Laboratory -5 Day BOD Benchsheet

Source : Omega - Protein

DO Meter Calibration Method Code: 5210-B

In 24° 8.4 100.3
Out 24° 8.4 99.7

Date In : 10-27-00 Out: 11-1-00
Time 1430 1330
Analyst WLW WLW

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN			100	8.0									
Temp 20		2	100			7.7		.3					
00-924	11		100	9.0									
Temp 20		34	100		9.0	5.5		3.5		39	1	3.5	(3.5)
pH 7.9		36	50		8.5	6.9		1.6		19	2	~~3.2~~	
		96	25		8.3	7.5		0.8		10	4	~~3.2~~	
00-925	22		100	9.0									
Temp 20		99	100		9.0	5.3		3.7		41	1	3.7	(3.7)
pH 8.0		197	50		8.5	6.6		1.9		22	2	~~3.8~~	
		198	25		8.3	7.2		1.1		13	4	~~4.4~~	
00-926	31		100	9.0									
Temp 20		208	100		9.0	5.1		3.9		43	1	3.9	(4.1)
pH 7.9		229	50		8.5	6.4		2.1		25	2	4.2	
		230	25		8.3	7.3		1.0		12	4	~~4.0~~	
00-927	33		100	~~9.0~~	7.3								
Temp 20		244	100		7.3	0	—	—	—	—	1	—	—
pH 7.9		308	50		7.7	2.1		5.6		73	2	11.2	(11.6)
		310	25		7.8	4.8		3.0		38	4	12.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration | Method Code: 5210-B | Date In: 10-26-00 Out: 10-31-00

In 23°C 8.5 100.1 | Time 1015 | 1025

Out 24°C 8.4 100.0 | Analyst SSC | SSC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN	40		100	8.8									
Temp	20°C	40	100			8.5		0.3					
00-909	48		100	6.3									
Temp	20°C	52	50		7.6	4.0		3.6		47%	2	7.2	
pH	7.2	57	25		8.2	6.6		1.6		19%	4	6.4	
		67	15		8.4	7.5		0.9		11%	6.67	6.0	
		86	10		8.6	8.0		0.6		7%	10	6.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration — Method Code: 5210-B

In 24684-99.2

Out 25483-99.8

Date In : 10-25-00 Out: 10-30-00

Time 1035 1045

Analyst SEC SEC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TK1	3		100	8.5									
Inlp	204	3	100			8.3		0.2					
0000	208		100	9.0									
Finp	209	213	50		8.8	5.6		3.2		36%	2	(6.4)	
pH	7.1	220	25		8.7	7.0		1.7		20%	4	6.8	
		223	15		8.6	7.607		0.9		10%	6.67	6.0	
		228	10		8.6	7.980		0.6		7%	10	6.0	

Laboratory -5 Day BOD Benchsheet

Source : Onion, Protein

DO Meter Calibration — Method Code: 5210-B

In 24°C 8.4 99.9

Out 23°C RS 99.4

Date In : 10-24-00 Out: 10-29-00

Time 1110 1000

Analyst SSC SSC

Sample Number	Bottle Number for: IDO	Bottle Number for: 5 Days	Conc. Percent	Dissolved Oxygen: Initial: ml	Initial: ppm	5 Days: ml	5 Days: ppm	Depletion, ppm: Total	Depletion, ppm: Less Blank	Depletion, ppm: Percent	Conc. Factor	5 Day BOD	5 Day BOD Sample
TN	95		100	8.4									
Temp	20°C	95	100			8.2		0.2					
ORG	96		100	6.0									
Temp	20°C	97	50		7.2	5.5		1.7		24%	2	3.4	
pH	7.1	99	25		7.8	7.2		0.6		8%	4	~~3.4~~	
		101	15		7.9	7.6		0.3		4%	6.67	3.0	
		103	10		8.2	7.9		0.3		4%	10	3.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega-Protein

DO Meter Calibration — Method Code: 5210-B

In 22° 8.7 100

Out 22° 8.5 100.1

Date In : 10-31-00 Out: 10-26-00

Time 1030 1015

Analyst WLW SSC

Sample Number	Bottle Number for: IDO	Bottle Number for: 5 Days	Conc. Percent	Dissolved Oxygen: Initial: ml	Initial: ppm	5 Days: ml	5 Days: ppm	Depletion, ppm: Total	Depletion, ppm: Less Blank	Depletion, ppm: Percent	Conc. Factor	5 Day BOD	5 Day BOD Sample
TN			100	8.2									
Temp	20	38	100			8.2		0					
02-902-62			100	5.6									
P Temp 20		72	50		6.9	0		—		—	2	—	
pH 7.7		74	25		~~8.2~~	0		—		—	4	—	
C		77	15		7.8	1.1		6.7		86%	6.67	44.7	69.2
		93	10		7.9	3.0		4.9		102%	10	49	

7
0
47
CSCor

Laboratory -5 Day BOD Benchsheet

Source : [illegible]

DO Meter Calibration

In 23°C 85 ; 100.1

Out 24°C 84 99.2

Method Code: 5210-B

	In	Out
Date	10-20-00	10-25-00
Time	1030	1035
Analyst	SSC	SSC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN	36		100	8.1									
Temp	20°C	36	100			8.1		0					
m 844	38		100	4.9									
Temp 844	20°C	40	50		6.5	1.9		4.6		71%	2	9.2	9.2
pH	7.3	48	25		7.3	5.0		2.3		32%	4	9.2	
		52	15		7.6	6.4		1.2		16%	6.67	8.0	
		67	10		7.8	6.9		0.9		12%	10	9.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration J Method Code: 5210-B

In	27°C 8.5 99.4	Date In :	10-19-00 Out: 10-24-00
Out	24° 8.4 99.4	Time	1025 1110
		Analyst	SSC SSC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN	2		100	8.5									
Temp	20°C	2	100			8.5							
00-889	3		100	8.2									
Temp	20°C	11	50		8.5	3.7		4.8		56%	2	9.6	9.2
pH	7.0	31	25		8.5	6.3		2.2		26%	4	8.8	
		33	15		8.5	7.0		1.5		18%	6.67	10.0	
		34	10		8.5	7.7		0.8		9%	10	8.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration — Method Code: 5210-B

In	24°C 8.4	100.3	
Out	23°C 8.5	99.7	

	In :	Out:
Date	10-18-22	10-23-22
Time	1015	0945
Analyst	SC	SC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN	308		100	8.5									
Temp	20°C	308	100			8.2		0.3					
DO 882	310		100	0.5									
Temp	20°C	313	50		4.5	0				—	2	—	
pH	7.5	316	25		6.5	0				—	4	—	
		328	15		7.3	2.4		4.9		67%	6.67	32.7	32.9
		336	10		7.7	4.4		3.3		43%	10	33.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration — Method Code: 5210-B

In 20°C 8.5 99.6

Out 20°C 8.5 99.9

Date In : 10-15-00 Out: 10-20-00

Time 1650 1500

Analyst SSC SSC

Sample Number	Bottle Number for: IDO	Bottle Number for: 5 Days	Conc. Percent	Dissolved Oxygen: Initial: ml	Initial: ppm	5 Days: ml	5 Days: ppm	Depletion, ppm: Total	Depletion, ppm: Less Blank	Depletion, ppm: Percent	Conc. Factor	5 Day BOD	Sample
TN	62		100	7.1									
Temp	20°C	67	100			7.0		0.1					
00-878	64		100	7.5									
Temp	20°C	78	50		7.3	0		—			2		
pH	7.4	74	25		7.2	3.3		3.9		54%	4	15.6	
		77	15		7.1	5.4		1.7		24%	6.67	11.3	
		93	10		7.1	5.6		1.5		21%	10	15.0	—
00-880	99-1		100	8.3									
Temp	20°C	95	50		7.7	0		—		—	42	—	
pH		96	25		7.4	3.3		4.1		55%	4	16.4	
		97	15		7.3	5.6		1.7		23%	6.67	11.3	
		99	10		7.2	6.2		1.0		14%	10	10.7	

2P + 20°C

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration

In 23°C 8.5 99.3

Out 23° 8.5 99.4

Method Code: 5210-B

	In :	Out:
Date	10-14-00	10-19-00
Time	1200	1005
Analyst	SSC	SSC

[illegible] 0°C

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN	208		100	7.4									
Temp	20°C	208	100			7.0		0.4					
00-876	213		100	7.4									
Temp	20°C	220	50		7.4	0		—		—	2	—	
pH	7.3	223	25		7.4	4.2		3.2		43%	4	12.8	
		228	15		7.4	6.0		1.4	—	19%	6.67	9.3	
		229	10		7.4	6.4		1.0	—	14%	10	10.0	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration — Method Code: 5210-B

In 23°C 85 99.2

Out 23°C 85 99.5

	In :	Out:
Date	10-11-10	10-16-10
Time	1020	1130
Analyst	SSC	SSC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Depletion, ppm Total	Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN	52		100	8.3									
Temp	20°C	52	100			8.3							
10804	234		100	3.5									
Temp	20°C	36	15		7.6	—0				—	6.67	—	
pH	7.5	138	10		7.8	—0				—	10	—	
		240	5		8.1	1.3		6.8		84%	20	136	119
		48	3.33		8.1	4.7		3.4		42%	30	102	

Laboratory -5 Day BOD Benchsheet

Source : Omega Protein

DO Meter Calibration — Method Code: 5210-B

In 22° 8.7 99.6
Out 23° 8.5 99.9

	In:	Out:
Date	10-7-00	10-12-00
Time	1030	1000
Analyst	WLW	WLW

Sample Number	Bottle Number for: IDO	Bottle Number for: 5 Days	Conc. Percent	Dissolved Oxygen: Initial: ml	Initial: ppm	5 Days: ml	5 Days: ppm	Depletion, ppm: Total	Depletion, ppm: Less Blank	Depletion, ppm: Percent	Conc. Factor	5 Day BOD:	5 Day BOD: Sample
TN			100	8.1									
Temp	20	339	100			7.9		.2					
DD-862	313		100	5.6									
Temp 20		316	50		6.9	3.8		3.1		45	2	6.2	6.2
pH 7.0		320	25		7.5	6.1		1.4		19	4	~~5.6~~	
		328	15		7.7	6.9		0.8		10	6.67	~~5.3~~	
		336	10		7.9	7.3		0.6		8	10	~~6.0~~	

Laboratory -5 Day BOD Benchsheet

Source : Omega - Protein

DO Meter Calibration — Method Code: 5210-B

In 23° 8.5 100.1
Out 22° 8.5 99.9

Date In : 10-6-00 Out: 10-11-00
Time ~~1530~~ 1320
Analyst ~~LWW~~ SC

Sample Number	Bottle Number for: IDO	5 Days	Conc. Percent	Dissolved Oxygen Initial: ml	ppm	5 Days: ml	ppm	Total	Depletion, ppm Less Blank	Percent	Conc. Factor	5 Day BOD	Sample
TN			100	8.3									
Temp	20	99	100				8.1						
50-85	229		100	6.5									
Temp	30	302	50			7.5	4.3		3.2	43%	2	6.4	
pH	7.1	303	25			7.8	6.5		~~1.3~~	~~17%~~	~~4~~	5.2	6.4
		306	15			8.0	7.2		~~0.8~~	~~10%~~	6.67	5.3	
		310	10			8.1	7.5		~~0.6~~	~~7%~~	~~10~~	~~6.0~~	

Laboratory -5 Day BOD Benchsheet

Source : Omega-Protein

DO Meter Calibration — Method Code: 5210-B

In 23° 8.5 99.7
Out 22° 8.7 100.1

Date In : 10-5-00 Out: 10-10-00
Time 1400 1340
Analyst WKH WKH

Sample Number	Bottle Number for: IDO	Bottle Number for: 5 Days	Conc. Percent	Dissolved Oxygen: Initial: ml	Initial: ppm	5 Days: ml	5 Days: ppm	Depletion, ppm: Total	Depletion, ppm: Less Blank	Depletion, ppm: Percent	Conc. Factor	5 Day BOD	5 Day BOD Sample
TN			100	8.0									
Temp.	20	40	100			7.8		.2					
~~8:50~~	96		100	3.6									
Temp 20		198	50		5.8	2.6		3.2		55	2	6.4	6.4
pH 7.2		209	25		6.9	5.4		1.5		22	4	~~6.0~~	
		214	15		7.3	6.5		0.8		11	6.67	~~5.3~~	
		244	10		7.6	7.0		0.6		8	10	~~6.0~~	

ID	Client	Site	Date/Time Collected	Date/Time Rec'd	Sampler	other
00-847	Lake Frederick	Station #5 Top	10-4-00	10-4-00 (1530)	DS	
00-848	"	" Bottom	"	"	"	"
00-849	"	Station #6	"	"	"	"
00-850	Omega Protein	Scrubber	10-4-00 (0730)	10-5-00 (0800)	J.R.	
00-851	"	Cockrell Creek	"	"	"	
00-852	City of F'burg	STP Eff.	10-1-00 (24HC)	10-5-00 (1051)	Staff	
00-853	"	"	10-2-00	"	"	
00-854	"	"	10-3-00	"	"	
00-855	"	"	10-4-00	"	"	
00-856	"	STP Inf.	10-4-00	"	"	
00-857	Omega Protein	Scrubber	10-5-00 (0725)	10-6-00 (0800)	J.R.	
00-858	"	Evap. #004	"	"	"	
00-859	"	Evap. #005	"	"	"	
00-860	"	Cockrell Creek	"	"	"	
00-861	Spotsy. Co	Mass. STP Eff	10-5-00	10-6-00 (1025)	D.C.	
00-862	Omega Protein	Scrubber	10-6-00 (0740)	10-7-00 (0930)	J.R.	
00-863	"	Cockrell Creek	"	"	"	
00-864	"	Lagoon #002	10-10-00 (0725)	10-11-00 (0800)	J.R.	
00-865	Dab/Crooks	Four Winds STP Eff.	10-11-00 (0515)	10-11-00 (1330)	Bob	
00-866	L.G. Swain	503 Persimmon Ln	10-11-00 (1000)	10-11-00	L.S. #62	
00-867	City of F'burg	STP Eff.	10-5-00 (24HC)	10-12-00 (1110)	Staff	
00-868	"	"	10-6-00	"	"	
00-869	"	"	10-7-00	"	"	
00-870	"	"	10-8-00	"	"	
00-871	"	"	10-9-00	"	"	
00-872	"	"	10-10-00	"	"	
00-873	"	"	10-11-00	"	"	
00-874	"	STP Inf.	10-11-00	"	"	
00-875	Dab/Crooks	Locust Grove Elem.	10-11-00	10-12-00 (1150)	D.C.	
00-876	Omega Protein	Scrubber	10-13-00 (0735)	10-14-00 (1140)	JR	
00-877	"	Cockrell Creek	"	"	"	

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PROJECT _____ Notebook No. _____

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ID	Client	Site	Date/Time Collected	Date/Time Rec'd	Sampler	Other
00-878	Omega Protein	Scrubber	10-14-00 0730	10-15-00 1630	JR	
00-879	"	Cockrell Creek	"	"	"	
00-880	"	Scrubber	10-15-00 0635	"	"	
00-881	"	Cockrell Creek	"			
00-882	"	Scrubber	10-17-00 (0710)	10-18-00 (0800)	J.R.	
00-883	"	Cockrell Creek	"	"	"	
00-884	"	Lagoon	" (0800)	"	"	
00-885	Dale Crooks	Locust Grove Elem. Eff.	10-17-00 (1255)	10-18-00 (0820)	D.C.	
00-886	"	8916 ~~Beavs~~ Seavs RD	10-15-00 (1125)	10-18-00 (0820)	D.C.	
00-887	"	3603 Burton RD	10-17-00 (1710)	"	"	
00-888	Walts Const.	14091 Shirley Rd.	10-17-00 (1510)	10-18-00 (0814)	L.W.	
00-889	Omega Protein	Scrubber	10-18-00 (0735)	10-19-00 (0800)		JR
00-890	"	Cockrell Creek	10-18-00	10-19-00 (0800)		JR
00-891	City of Fburg	STP Eff.	10-12-00 (24HC)	10-19-00 (1310)	Staff	
00-892	"	"	10-13-00	"	"	
00-893	"	"	10-14-00	"	"	
00-894	"	"	10-15-00	"	"	
00-895	"	"	10-16-00	"	"	
00-896	"	"	10-17-00	"	"	
00-897	"	"	10-18-00	"	"	
00-898	"	STP Inf.	10-18-00	"	"	
00-899	Omega Protein	Scrubber	10-19-00 (0735)	10-20-00 (0800)		JR
00-900	"	Cockrell Creek	"	"	"	
00-901	"	Evaporator 04	"	"	"	
00-902	"	Lagoon	10-20-00 (0755)	10-21-00 (100)	J.R.	
00-903	Walts Construction	4435 Lanes Corner Rd.	10-23-00 (1100)	D2300 45		
00-904	Omega Protein	Scrubber	10-23-00 (0725)	10-24-00 (0800)		JR
00-905	"	Cockrell Creek	"	"	"	
00-906	"	Evaporator 05	10-23-00 (0725)	"	"	
00-907	Omega Protein	Scrubber	10-24-00 (0710)	10-25-00 (0800)	J.R.	
00-908	"	Cockrell Creek	"	"	"	

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ID	Client	Site	Date/Time Collected	Date/Time Rec'd	Sampler	Other
00-909	Omega-Protein	Scrubbar	10-25-00 (0650)	10-26-00 (0800)	J.R.	
00-910	"	Cockrell Creek	"	"	"	
00-911	Cameron Sutton	13510 Bugle nute Way	10-24-00 (0800)	10-26-00 (0905)	CS	
00-912	City of Fburg	STP Eff.	10-19-00 (24HC)	10-26-00 (1330)	Staff	
00-913	"	"	10-20-00	"	"	
00-914	"	"	10-21-00	"	"	
00-915	"	"	10-22-00	"	"	
00-916	"	"	10-23-00	"	"	
00-917	"	"	10-24-00	"	"	
00-918	"	"	10-25-00	"	"	
00-919	"	STP Inf.	10-25-00	"	"	
00920	City of Fburg	MWC Custis 2nd fl. kitchen	10-26-00 (1330)	10-26-00 (1430)	PC	
00-921	"	" Room 307	" (1340)	"	"	
00-922	"	" Ball 1st fl. kitchen	" (1350)	"	"	
00-923	"	" Madison Hall	" (1410)	"	"	
00-924	Omega-Protein	Shearwater - Pre Discharge	10-25-00 (1330)	10-27-00 (0800)		
00-925	"	" - After Discharge	" (1340)	"		
00-926	"	Lancaster - Pre Discharge	" (2000)	"		
00-927	"	" - After Discharge	" (2020)	"		
00-928	Four Winds	Well #1	10-27-00 (0730)	10-27-00 (0900)	D.C.	
00-929	"	#2	" (0740)	"	"	
00-930	"	#3	" (0750)	"	"	
00-931	"	#4	" (0750)	"	"	
00-932	"	#5	" (0755)	"	"	
00-933	Dab/Crooks	Indian Acres STP Eff.	10-25-00	10-27-00 (0930)	B.D.	
00-934	"	220 Morgan Ln.	10-29-00 (1445)	10-30-00 (1125)	D.C.	PH
00-935	High Pt. Marina	4034 Courthouse Rd. Pump Sta.	10-30-00 (1115)	10-30-00 (1212)	CW	
00-936	Wm. Gallaghan	4 Patton Ln.	10-31-00 (0700)	10-31-00 (1350)	W.C.	
00-937	Jack Payne	8004 Courthouse Rd.	11-1-00	11-1-00 (0935)	J.P.	
00-938	Wilderness Resort	Well #1	11-1-00 (1040)	11-1-00 (1110)	A.S.	
00-939	"	Well #2	(1010)	"	"	
00-940	"	Well #3	(1050)	"	"	

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Read and Understood By

Signed Date Signed Date

			Date	Flow	pH	Temp °C
	00-813	Scrubber	9-28-00	2.434	7.59	24
See p. 54	00-814	Evaporator #004	"	9.968		
	00-815	Cockrell Creek	"			
	00-825	Scrubber	9-29-00	2.839	7.31	26
	00-826	Cockrell Creek	"			
	00-827	Scrubber	9-30-00	4.867	6.97	30
	00-828	Cockrell Creek	"			
	00-850	Scrubber	10-4-00	.608	7.2	28
	00-851	Cockrell Creek	"			

Sus. Solids (mg/L)

WLW 9-29-00 In 1180 Out 1300

00-813 (12) 1.1107 / 1.1020 — 700ml / 10min — .0087 — 12.5 (12.4)

00-815 (14) 1.1149 / 1.1069 — 700ml / 10min — .0080 — (11.4)

WLW 10-2-00 In 1355 Out 1600

00-825 (15) 1.1236 / 1.1175 — 1000ml — .0061 — (6.1)

00-826 (18) 1.1118 / 1.0978 — 400ml — 0.0140 — (35)

0.1 Increase (mg/L)

WLW 10-5-00 (0950)

00-813 (4) 95.3565 / 95.3471 — 930ml — .0094 — <5

00-825 (6) 93.2334 / 93.2296 — 950ml — .0038 — <5

00-827 (7) 95.4544 / 95.4503 — 910ml — .0041 — <5

WLW 10-10-00 (0940)

00-850 (9) 94.7295 / 94.7280 — 940ml — .0015 — (<5)

00-827 (20) 1.1154 / 1.1093 — 1000ml — .0061 — 8.8 (6.1)

00-828 (16) 1.1015 / 1.0935 — 500ml / 10min — .0080 — (16)

4.4 WLW 10-9-00 In 1500 Out 1700

00-850 (18) 1.1087 / 1.1013 — 800ml / 10min — .0074 — (8.8)

00-851 (12) ~~1.0903~~ / ~~1.1013~~ / 1.1013 / 1.0946 — 710ml / 10min — .0067 — (9.4)

Blank (2) 94.4211 / 94.4207 — 1000ml — .0004

PAR STD (3) 95.9674 / 95.9470 — 620mg/L — 1000ml — .0204 — (20.4)

102% Recovery

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PROJECT Omega-Protein

Notebook NO. _____
Continued From Page _____

NH_3-N ml sample

	Std	5 mg/L	
WLW 9:29-00 (1425)	00-814	100	
	Std	5 mg/L	
WLW 10-6-00 (1315)	00-858	500	
	-859	500	
SL 10-9-00 1330	Std	5 mg/L	
	00-862	100	
	Std	5 mg/L	
WLW 10-11-00 (0900)	00-864	25	
SL 10-16-00 0930	00-876	100	
	Std	5 mg/L	
	Std	5 mg/L	
WLW 10-18-00 (1000)	00-884	25	
	Std	5 mg/L	
WLW 10-20-00 (1015)	00-901	500	

Abs / ml 1.0 ≈ NH_2SO_4 mg/L

	10.0 = 9.0 x .56	5.04
Blank 1.0	3.2 = 2.2 x 2.8	6.16
	10.2 = 9.2 x .56	5.15
Blank 1.0	7.8 = 6.8 x .56	3.81
	16.1 = 15.1	8.46
	9.9 = 8.9 x .56	4.98
Blank 1.0	2.8 = 1.8 x 2.8	5.04
	10.0 = 9.0 x .56	5.04
Blank 1.0	9.9 = 8.9 x 11.2	99.7
Blank 1.0	4.1 = 3.1 x 2.8	8.68
	10.3 - 9.3 x .54	5.21
	10.1 = 9.1 x .56	5.10
Blank 1.0	9.8 = 8.8 x 11.2	98.6
	10.0 = 9.0 x .56	5.04
Blank 1.0	2.8 = 1.8 x .56	1.01

ORGANIC-N ml sample

00-862	100	
00-876	100	
-901	500	

Abs / ml 1.0 ≈ NH_2SO_4 mg/L

Blank 0.8	2.3 = 1.5 x 2.8	4.20
"	2.3 = 1.5	4.20
	2.0 = 1.0	2.8

TKN-N (mg/L)

00-862	9.24
00-876	12.9
00-901	3.81

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Read and Understood By

Signed _____ Date _____ Signed _____ Date _____

			Date	Flow	pH	Temp °C
	00-857	Scrubber	10-5-00	4.867	7.14	33
See p. 54	00-858	Evap. Pond #4	"	1.103		33
"	00-859	Evap. Pond #5	"	8.424		33
	00-860	Cockrell Creek	"			
See p. 54 & 62	00-862	Scrubber	10-4-00	4.867	7.14	32
	00-863	Cockrell Creek	"			
See p. 54	00-864	Lagoon	10-10-00	.088	7.55	17
See p. 54 & 62	00-876	Scrubber	10-13-00	4.461	7.27	24
	00-877	Cockrell Creek	"			

Susp. Solids (mg/L)

WLW 10-9-00 In 1500 Out 1700

00-857 1000 ~~800~~ ml — 1.1048 (11), 1.0996 (13), 1.1087, .0052 → 5.2

00-860 800 ~~710~~ ml / 10 min — 1.1050 (12), 1.0979 (18), 1.1013, .0071 → 8.9

00-862 900 ~~1000~~ ml / 10 min — 1.0964 (13), 1.0901 (21), 1.0996, .0063 → 7.0

00-863 ~~710~~ ml / 10 min — 1.0965 (8), 1.0903 (42), 1.0979, .0067 → 8.7

Mean 6.4

00-864 SSL 10-13-00 In 0930 Out 1130 — 30 / 10 min — 1.099, ~~1.098~~, 1.0896, .0102 → 340

WLW 10-16-00 In 1015 Out 1300 — 00-876 600 ml / 10 min — 1.1235 (6), 1.1149, .0086 → 14.3

00-877 600 ml / 10 min — 1.1087 (13), 1.1026, .0061 → 10.2

Mean 12.8

119

Coarse (mg/L)

WLW 10-10-00 (1005) — 00-857 940 ml — 94.5022 (16), 94.5008, .0014 → <5

00-862 905 ml — 95.1566 (1), 95.1541, .0025 → <5

WLW 10-17-00 (0840) — 00-864 900 ml — 95.1584 (1), 95.1550, .0034 → <5

00876 915 ml — 94.4257 (2), 94.4209, .0048 → 5.2

Continued on Page 62

Read and Understood By

Signed Date Signed Date

PROJECT Omega - Protein

Notebook No.

Continued From Page

NO_2-N

		ml sample	Abs	mg/L
	Std	(.01 mg/L) (.05 mg/L)	.034, .162	.01, .048
WLW 10-7-00 (1455)	00-862	10	.200	.060 x 5 .30
SSC 10-16-00	00-876	10	.195	.058 x 5 ~~.585~~ .29
	Std	(.01 mg/L) (.05 mg/L)	.032, .169	.01, .051
	Std	(.01 mg/L) (.05 mg/L)	.033, .164	.01, .049
WLW 10-20-00 (0900)	00-901	50	.004	<.01
	Std	(.01 mg/L) (.05 mg/L)	.032, .171	.01, .051
WLW 10-24-00 (0850)	00-906	50	.010	<.01

NO_3-N

		ml sample	Abs	mg/L
SSC 10-10-00 1020	Std	~~10~~, 50	.140	.505
	00-862	10	.041	.172
SSC 10-17-00 0840	00-876	10	.058	.229
	Std	.10, .50	.020, .143	.101, .515
WLW 10-20-00 0916	Std	.10, .50	.024, .150	.114, .539
	00-901	10	.025	.118
SSC 10-24-00 0905	Std	.10, .50	.021, .144	.104, .519
	00-906	10	.045	.185

Tot. PO_4-P

		ml sample	Abs	mg/L
	Std	(.05 mg/L) (.50 mg/L)	.020, .232	.046, .516
WLW 10-9-00 (1005)	00-862	50	.080	.185
SSC 10-17-00 (1015)	00-876	50	.078	.181
	Std	.05, .50	.021, .210	.048, .488
SSC 10-24-00 (0845)	Std	.05, .50	.021, .207	.048, .481
	00-901	50	.067	.155
	~~00-902~~ 00-906	50	.061	.141

Continued on Page

Read and Understood By

Signed | Date | Signed | Date

PROJECT Omega Protein

Noted ... No. ____

Continued From Page 61

		Date	Flow	pH	Temp °C
00-878	Scrubber	10-14-00	4.8672	7.32	27
00-879	Cockrell Creek	"			
00-880	Scrubber	10-15-00	3.8532	7.65	25
00-881	Cockrell creek	"			
00-882	Scrubber	10-17-00	2.231	7.68	30
00-883	Cockrell Creek	"			
See p. 54 00-884	Lagoon	"	.107		22
00-889	Scrubber	10-18-00	2.4334	7.06	25
00-890	Cockrell Creek	"			

Susp. Solids (mg/L)

wlw 10-16-00 In 1015 out 1300

00-878 (16) 600ml 10min
1.1359
1.1268
.0091
15.6 (15.2)

00-879 (22) 600ml 10min
1.1109
1.1027
.0082
(13.7)

00-880 (44) 700ml 10min
1.1087
1.1004
.0083
16.4 (11.9)

00-881 (48) 700ml 10min
1.0985
2.0916
.0069
(9.9)

wlw 10-19-00 In 1000 out 1200

00-882 (40) 500ml
1.1154
1.0966
.0188
32.9 (37.6)

00-883 (41) 460ml
1.1123
1.0944
.0179
(38.9)

00-889 (43) 500ml 10min
1.0947
1.0893
.0054
9. (10.8)

00-890 (46) 600ml 10min
1.1015
1.0950
.0065
(10.8)

Oil & Grease (mg/L)

wlw 10-17-00 (0920)

00-878 (3) 910ml
95.9509
95.9472
.0037
(<5)

00-880 (4) 960ml
95.3511
95.3470
.0041
(<5)

Blank (6) 1000ml
93.2295
93.2292
.0003
(<5)

PAR STD (20mg/L) (7) 1000ml
95.6710
95.6503
.0207
(20.7)

104% Recovery

wlw 10-24-00 (0845)

00-882 (1) 915ml
95.1598
95.1540
.0058
(6.3)

00-889 (2) 955ml
94.4229
94.4200
.0029
(<5)

Continued on Page 66

Read and Understood By

Signed ____ Date ____ Signed ____ Date ____

			Date	Flow	pH	Temp °C
	00-899	Scrubber	10-19-00	.81200	7.34	24
	00-900	Cockrell Creek	"	~~3.9668~~		24
See p.54, 62	00-901	evaporator 004	"	3.9668		
See p.67	00-902	Lagoon	10-20-00	.207	7.72	19
	00-903	Scrubber	10-23-00	4.8672	7.14	26
	00-905	Cockrell creek	"	~~8.424~~		
See pur 67	00-906	Evap. 005	"	8.424		26
	00-907	Scrubber	10-24-00	4.867	7.17	26
	00-908	Cockrell Creek	"			

Susp. Solids (mg/L)

WLW 10-23-00 In 1032 Out 1300
00-899 500ml/10min (3) 1.1051 / 1.0991 / .0060 — 12.0 — 9.2

00-900 600ml/10min (5) 1.1201 / 1.1128 / .0073 — 12.2 — 9.9

00-902 420ml/10min (9) 1.1249 / 1.1148 / .0101 — 24.0 — 9.2

WLW 10-23-00 In 0950 Out 1130
00-904 ~~900~~ 1000ml/10min (4) 1.1179 / 1.1079 / .0100 — 10.0 — 3.4

00-905 700ml/10min (15) 1.1244 / 1.1178 / .0066 — 9.4

00-907 800ml/10min (17) 1.1109 / 1.1054 / .0055 — 6.9 — 6.4

00-908 600ml/10min (20) 1.1151 / 1.1094 / .0057 — 9.5

Oil & Grease (mg/L)

WLW 10-24-00 (1033)
00-899 950ml (3) 95.9483 / 95.9461 / .0022 — <5

00-902 945ml (4) 95.3488 / 95.3460 / .0028 — <5

00-904 915ml (6) 93.2313 / 93.2284 / .0029 — <5

Blank 1000ml (7) 95.6492 / 95.6485 / .0007 — <5

PAR STD (20mg/L) 1000ml (8) 94.2253 / 94.2043 / .0210 — 21.0
105% Recovery

WLW 10-31-00 (1325)
00-907 930ml (1) 95.1596 / 95.1570 / .0026 — <5

Continued on Page

Read and Understood By

Signed Date Signed Date

PROJECT Umega-1 steam

Co...ued From Page

	NH_3-N	ml sample	Abs/ml .02N H_2SO_4	mg/L
	Std	5 mg/L	10.1 = 9.1 x .56	5.10
WLW 10-23-00 (1030)	00-902	50	Blank 1.0 21.8 = 20.8 x 5.6	116
SEC 10-24-00 0910	Std	5.0 mg/L	Blank 1.0 10.2 - 9.2 x .56	5.15
	00-906	500	6.9 = 5.9	3.30
SSV 11-8-00 (0845)	Std.	5 mg/L	.085	.492
	00-959	500 -> 25	.251 1.41 x 2	2.82
	Std.	5 mg/L	10.0 = 9.0 x .56	5.04
WW 11-9-00 (0945)	00-964	500	Blank 1.0 21.0 = 20 x .56	11.2

	ORGANIC-N	ml sample	Abs/ml .02N H_2SO_4	mg/L
	00-906	500 -> 50	.031	.192

TKN (mg/L)
00-906 3.49

Continued on Page

Read and Understood By

Signed Date Signed Date

		Date	Flow	pH	Temp. °C
00-909	Scrubber	10-25-00	1.825	7.21	28
00-910	Cockrell Creek	"			
00-951	Scrubber	11-3-00	1.014	7.67	16
00-952	Cockrell Creek	"			
00-953	Scrubber	11-4-00	2.028	7.61	21
00-954	Cockrell Creek	"			
00-955	Scrubber	11-5-00	1.217	7.28	21
00-956	Cockrell Creek	"			

SUSP. SOLIDS (mg/L)

WWD 10-27-00 In 1200 Out 1400

00-909 (14) 700ml 7min — 1.1131 / 1.1074 / .0057 — 7.2 — (8.1)

00-910 (40) 350ml — 1.1059 / 1.0947 / .0112 — (32)

WWD 11-6-00 In 1030 Out 1300

00-951 (3) 700ml 7min — 1.1064 / 1.0982 / .0082 — 21.3 — (11.7)

00-952 (3) 700ml 10min — 1.1197 / 1.1136 / .0061 — (8.7)

WWD 10-31-00

00-909 (2) 920ml — 94.4229 / 94.4200 / .0029 — (<5)

WWD 11-7-00 (0823)

00-951 (3) 950ml — 95.9516 / 95.9475 / .0041 — (<5)

00-953 (4) 945ml — 95.3496 / 95.3479 / .0017 — (<5)

00-953 (9) 900ml 10min — 1.1239 / 1.1145 / .0094 — (10.4)

00-954 (13) 500ml 10min — 1.1062 / 1.0981 / .0081 — (16.2)

00-955 (22) 700ml 10min — 1.1122 / 1.1027 / .0095 — (13.6)

00-956 (41) 550ml 10min — 1.0985 / 1.0933 / .0052 — (9.5)

Oil & Grease (mg/L)

00-955 (6) 935ml — 93.2315 / 93.2297 / .0018 — (<5)

Blank (1) 1000ml — 95.~~9525~~ / 95.6504 / .0006 — (<5)

PAR STD (20 mg/L) (8) 1000ml — 94.2257 / 94.2049 / .0208 — (20)

Continued on Page

Read and Understood By

104% Recovery

Signed _____ Date _____ Signed _____ Date _____

00-924	Shearwater	- Pre Discharge	10-25-00
00-925	"	- After Discharge	
00-926	Lancaster	- Pre Discharge	
00-927	"	- After Discharge	

BOD (mg/L)

00-924	3.5
-925	3.7
-926	4.1
-927	11.6

NH_3-N

	ml sample		Abs	mg/L
Std				
00-924	500	→ 50	.027	.170
-925	500	"	.022	.143
-926	500	"	.018	.120
-927	500	"	.029	.181

WLW 10-27-00 (1015)

Salinity (ppt)

00-924	14.5
-925	14.6
-926	14.6
-927	14.6

WLW 10-27-00 (1600)

Continued on Page

Read and Understood By

Signed	Date	Signed	Date

OMEGA PROTEIN

November 27, 2000

Mr. Frank Lupini
Department of Environmental Quality
Piedmont Regional Office
4949-A Cox Road
Glen Allen, VA 23060

Dear Mr. Lupini:

Enclosed is the data that you requested. I feel that this amount of data should answer your questions. Please let me know if there is anything else that you need or any questions you may have.

Sincerely,

John

Mr. John C. Barnes, Jr.

P.O. Box 175, Reedville, Virginia 22539. Telephone 804-453-4211, Fax 804-453-4475

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE
4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
http://www.deq.state.va.us

Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

Re word based on Nov. 29, 2000 Meeting

November 29, 2000

Mr. John Barnes, Environmental Manager
Omega Protein Incorporated
P.O. Box 175
Reedville, VA 22539

Privileged Settlement Communication

RE: Adjusted Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Barnes:

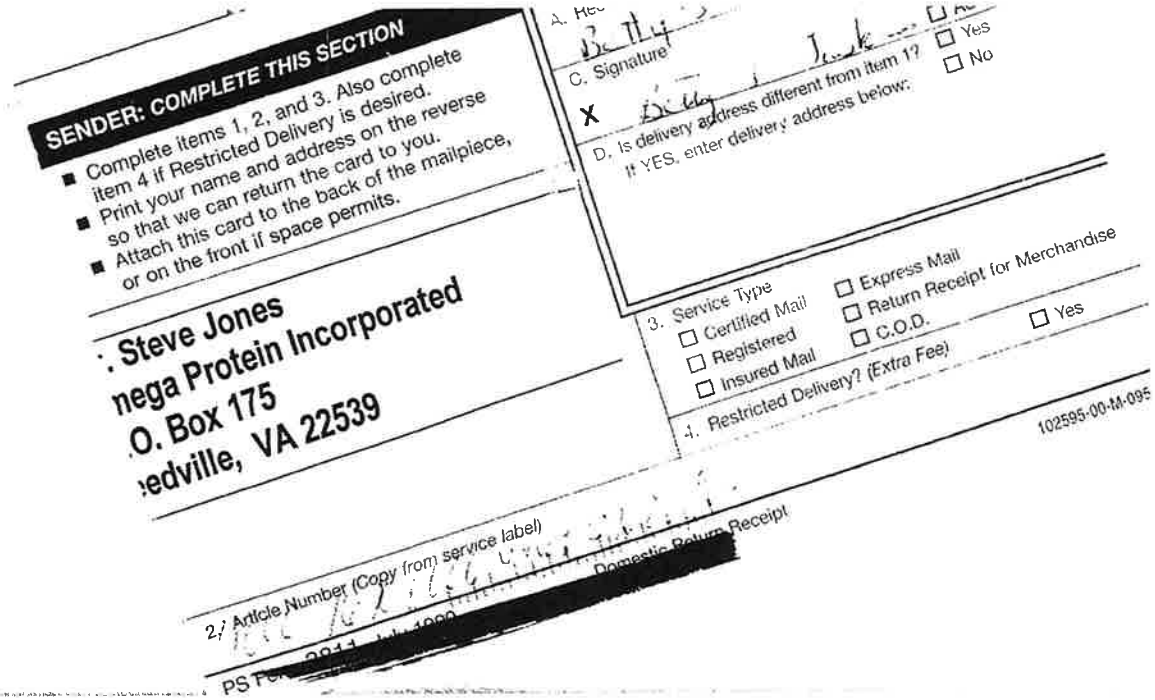
Enclosed is an adjusted proposed Consent Order for Omega Protein. Please review the draft and provide me with any comments by December 11, 2000.

If you have any questions about the Order, please contact me at (804) 527-5093.

Sincerely,

Frank E. Lupini
Enforcement Specialist, Sr.

enclosure
cc: Omega Protein File VA0003867, w/o enclosure



SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

: Steve Jones
nega Protein Incorporated
.O. Box 175
:edville, VA 22539

A. Rec
C. Signature
X
D. Is delivery address different from item 1? ☐ Yes ☐ No
If YES, enter delivery address below:

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.
4. Restricted Delivery? (Extra Fee) ☐ Yes

102595-00-M-095

2. Article Number (Copy from service label)

PS Form 3811, July 1999 Domestic Return Receipt

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE
4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
http://www.deq.state.va.us

Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

November 29, 2000

Mr. John Barnes, Environmental Manager
Omega Protein Incorporated
P.O. Box 175
Reedville, VA 22539

Privileged Settlement Communication

RE: Adjusted Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Barnes:

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If you have any questions about the Order, please contact me at (804) 527-5093.

Sincerely

Frank E. Lupini
Enforcement Specialist, Sr.

enclosure
cc: Omega Protein File VA0003867, w/o enclosure

DRAFT
STATE WATER CONTROL BOARD ENFORCEMENT ACTION
SPECIAL ORDER BY CONSENT
ISSUED TO
OMEGA PROTEIN
VPDES VA0003867

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code §§ 10.1-1185 and 62.1-44.15(8a) and (8d), between the State Water Control Board and Omega Protein, for the purpose of resolving certain violations of environmental law and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Va. Code" means the Code of Virginia (1950), as amended.

2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.

4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Special Order.

6. "Omega Protein" means Omega Protein Incorporated, certified to do business in Virginia and its affiliates, partners, subsidiaries, and parents.

7. "Facility" means the Omega Protein Sewage Treatment Plant located in Reedville, Virginia.

8. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.

9. "Permit" means VPDES permit No. VA0003867, which became effective December 17, 1997 and expires December 17, 2002.

10. "O&M" means operations and maintenance.

SECTION C: Findings of Fact and Conclusions of Law

1. Omega Protein owns and operates a wastewater treatment facility in Northumberland County, Virginia. This facility is the subject of VPDES permit VA0003867, which allows Omega Protein to discharge treated wastewater into Cockrell's Creek and the Chesapeake Bay in strict compliance with terms, limitations and requirements outlined in the permit.

2. On April 28, 1999, DEQ executed a Consent Order with Omega for failing to report an unpermitted discharge. Omega paid a $7,500 civil penalty and the Order was closed in March 2000. Since the Order has closed, DEQ has noted numerous violations of the State Water Control Law.

3. On April 26, 2000, DEQ issued NOV No. 00-03-PRO-001 to Omega citing them for an unpermitted discharge created by sandblasting a vessel in the creek without the proper BMPs in place. In addition, Omega was cited for failure to meet the reporting requirements in its permit by 1) not reporting an unusual discharge which occurred after an equipment failure on July 7, 1999, 2) late submittals of BMP reporting, 3) failure to submit quarterly progress reports, and 4) improper toxicity testing.

4. On August 1, 2000, DEQ issued NOV No. W2000-05-K-001 to Omega citing them for late submittal of a quarterly progress report and total suspended solids violations in May 2000.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of the authority granted it in Va. Code § 62.1-44.15(8a) and (8d), orders Omega Protein, and Omega Protein agrees, to perform the actions described in Appendix A of this Order. In addition, the Board orders Omega Protein, and Omega Protein voluntarily agrees, to pay a civil charge of $18,600 within 30 days of the effective date of the

Order in settlement of the violations cited in this Order. Payment shall be made by check payable to the "Treasurer of Virginia", delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 10150
Richmond, Virginia 23240

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of Omega Protein, for good cause shown by Omega Protein, or on its own motion after notice and opportunity to be heard.

2. This Order only addresses and resolves those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including, but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility as may be authorized by law; and/or (3) taking subsequent action to enforce the terms of this order. Nothing herein shall affect appropriate enforcement actions by other federal, state, or local regulatory authority, whether or not arising out of the same or similar facts.

3. For purposes of this Order and subsequent actions with respect to this Order, Omega Protein admits the jurisdictional allegations, factual findings, and conclusions of law contained herein.

4. Omega Protein consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Omega Protein declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 9-6.14:1 *et seq.*, and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.

6. Failure by Omega Protein to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Omega Protein shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Omega Protein shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Omega Protein shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

   a. the reasons for the delay or noncompliance;

   b. the projected duration of any such delay or noncompliance;

   c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

   d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

   Failure to so notify the Regional Director within 24 hours of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Omega Protein. Notwithstanding the foregoing, Omega Protein agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until the Director or Board terminates the Order in his or its sole discretion upon 30 days written notice to Omega Protein. Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Omega Protein from its obligation to comply with any statute, regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. By its signature below, Omega Protein voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____day of _____, 2000.

_____
Dennis H. Treacy, Director
Department of Environmental Quality

Omega Protein voluntarily agrees to the issuance of this Order.

By: _____

Date: _____

Commonwealth of Virginia

City/County of _____

The foregoing document was signed and acknowledged before me this ___ day of _____, 2000, by _____, who is
(name)

_____ of Omega Protein, on behalf of the Corporation.
(title)

_____
Notary Public

My commission expires: _____.

APPENDIX A

Omega Protein shall:

1. **Immediately upon issuance of this Order,** develop and submit to PRO standard operating procedures to ensure that reporting violations do not reoccur at Omega Protein.

2. **Within thirty days of the issuance of this Order,** submit to the PRO a diagnostic evaluation (DE) of the Omega Protein wastewater treatment system. A state registered professional engineer must conduct the DE. The DE shall be used to determine if the facility, as built, can meet the NPDES permit limits at design flow. The State registered professional engineer shall submit a stamped letter to the Department certifying that the facility can or cannot meet permit limits at design flow as built.

3. If the DE indicates that construction of an upgrade is required for the facility to meet permit limits, then **sixty days from the issuance of the Order,** submit to the PRO a preliminary engineering report and an implementation schedule for the upgrade construction. The schedule, once approved by the PRO, shall become an enforceable part of this Order.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE
4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
http://www.deq.state.va.us

Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

December 12, 2000

Mr. John Barnes, Environmental Manager
Omega Protein Incorporated
7393 Northumberland Highway
Heathsville, Virginia 22473

Privileged Settlement Communication

FILE COPY

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left
con
on
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RE: Adjusted Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Barnes:

Enclosed is an adjusted proposed Consent Order for Omega Protein based on our discussions on November 29, 2000. Please review the draft and provide me with any comments by December 22, 2000. Also enclosed is a copy of Chapter 4 from the Enforcement Manual.

If you have any questions about the Order, please contact me at (804) 527-5093.

Sincerely

Frank E. Lupini
Enforcement Specialist, Sr.

enclosure
cc: Omega Protein File VA0003867, w/o enclosure
Denise Mosca, KSO w/ enclosure

DRAFT
STATE WATER CONTROL BOARD ENFORCEMENT ACTION
SPECIAL ORDER BY CONSENT
ISSUED TO
OMEGA PROTEIN
VPDES VA0003867

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1. Omega Protein owns and operates a wastewater treatment facility in Northumberland County, Virginia. This facility is the subject of VPDES permit VA0003867, which allows Omega Protein to discharge treated wastewater into Cockrell's Creek and the Chesapeake Bay in strict compliance with terms, limitations and requirements outlined in the permit.

2. On April 28, 1999, DEQ executed a Consent Order with Omega for failing to report an unpermitted discharge. Omega paid a $7,500 civil penalty and the Order was closed in March 2000. Since the Order has closed, DEQ has noted numerous violations of the State Water Control Law.

3. On April 26, 2000, DEQ issued NOV No. 00-03-PRO-001 to Omega citing them for an unpermitted discharge created by sandblasting a vessel in the creek without the proper BMPs in place. In addition, Omega was cited for failure to meet the reporting requirements in its permit by 1) not reporting an unusual discharge which occurred after an equipment failure on July 7, 1999, 2) late submittals of BMP reporting, 3) failure to submit quarterly progress reports, and 4) improper toxicity testing.

4. On August 1, 2000, DEQ issued NOV No. W2000-05-K-001 to Omega citing them for late submittal of a quarterly progress report and total suspended solids violations in May 2000.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of the authority granted it in Va. Code § 62.1-44.15(8a) and (8d), orders Omega Protein, and Omega Protein agrees, to perform the actions described in Appendix A of this Order.

During the time that this Order is in effect, Omega Protein and DEQ agree that, until the VPDES permit is modified, compliance for TSS, BOD, and O&G will be determined at the sampling point for outfall 001. Omega further agrees to continue to monitor and report for TSS, BOD, and O&G at outfall 006. Results from the analysis at outfall 001 shall be included with the DMR submittal as a separate attachment.

In addition, the Board orders Omega Protein, and Omega Protein agrees, to pay a civil charge of $18,600 within 30 days of the effective date of the Order in settlement of the violations cited in this Order. Payment shall be made by check payable to the "Treasurer of Virginia", delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 10150
Richmond, Virginia 23240

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of Omega Protein, for good cause shown by Omega Protein, or on its own motion after notice and opportunity to be heard.

2. This Order only addresses and resolves those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including, but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility as may be authorized by law; and/or (3) taking subsequent action to enforce the terms of this order. Nothing herein shall affect appropriate enforcement actions by other federal, state, or local regulatory authority, whether or not arising out of the same or similar facts.

3. For purposes of this Order and subsequent actions with respect to this Order, Omega Protein admits the jurisdictional allegations, factual findings, and conclusions of law contained herein.

4. Omega Protein consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Omega Protein declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 9-6.14:1 *et seq.*, and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.

6. Failure by Omega Protein to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Omega Protein shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Omega Protein shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Omega Protein shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

   a. the reasons for the delay or noncompliance;

   b. the projected duration of any such delay or noncompliance;

   c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

   d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

   Failure to so notify the Regional Director within 24 hours of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Omega Protein. Notwithstanding the foregoing, Omega Protein agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until the Director or Board terminates the Order in his or its sole discretion upon 30 days written notice to Omega Protein. Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Omega Protein from its obligation to comply with any statute,

regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. By its signature below, Omega Protein voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____day of _____, 2001.

_____
Dennis H. Treacy, Director
Department of Environmental Quality

Omega Protein voluntarily agrees to the issuance of this Order.

By: _____

Date: _____

Commonwealth of Virginia

City/County of _____

The foregoing document was signed and acknowledged before me this _____ day of _____, 2000, by _____, who is
(name)

_____ of Omega Protein, on behalf of the Corporation.
(title)

_____
Notary Public

My commission expires: _____.

APPENDIX A

Omega Protein shall:

1. **Immediately upon issuance of this Order**, develop and submit to PRO standard operating procedures to ensure that reporting violations do not reoccur at Omega Protein.

2. **Within thirty days of the issuance of this Order**, submit to the PRO a diagnostic evaluation (DE) of the Omega Protein wastewater treatment system. A state registered professional engineer must conduct the DE. The DE shall be used to determine if the facility, as built, can meet the NPDES permit limits at design flow. The State registered professional engineer shall submit a stamped letter to the Department certifying that the facility can or cannot meet permit limits at design flow as built.

3. If the DE indicates that construction of an upgrade is required for the facility to meet permit limits, then **sixty days from the issuance of the Order,** submit to the PRO a preliminary engineering report and an implementation schedule for the upgrade construction. The schedule, once approved by the PRO, shall become an enforceable part of this Order.

CHAPTER FOUR

CIVIL CHARGE CALCULATIONS

This Chapter sets forth how the Department generally expects to exercise its enforcement discretion in determining an appropriate civil charge it will be willing to settle a case under the Air, Waste, and Water Laws. Civil charges are used for deterrence purposes and to remove the economic benefit of non-compliance. Before calculating a civil charge, the staff must first determine whether the alleged violation warrants a civil charge.

The civil charge calculations set forth here are also used to calculate penalties for Code § 10.1-1186 Special Order Proceedings for all three media. The development of the penalty amount to plead in a judicial complaint is developed independently of these procedures and thus is not addressed here.

I. THE AIR PROGRAM

The Virginia Air Pollution Control Law ("Air Law") at § 10.1-1316(C) provides for the inclusion of negotiated civil charges in Consent Orders with a source for violations of the Air Law and Regulations. The maximum limit for a civil charge is $25,000 for each violation, with each day being a separate violation.

The following procedures address the calculation of civil charges under the Air Law and Regulations. To establish a civil charge, the enforcement staff must first determine if the violation is a "Serious," "Moderate," or "Marginal" violation. This classification is then used in the Civil Charge Calculation Worksheet ("Worksheet") to determine the civil charge amount.

A. SERIOUS, MODERATE, AND MARGINAL VIOLATIONS

The terms "Serious," "Moderate," and "Marginal" as they appear on the Worksheet are intended to reflect the relative severity of the noncompliance that led to the civil charge. The severity of the violation is reflected in the amount of the standard civil charges provided on the Worksheet. The sum of these standard civil charges and those civil charges calculated specifically for the noncompliance situation is the civil charge assessed to the source. The classification determines the civil charge assessed for each category of violations *with the exception of the economic benefit calculation.*

The following sections identify standardized situations for each of the violation severity levels. Ultimately, it is the professional judgement of the regional personnel that will be the determining factor on what level of severity is assigned to each violation. The table is intended to provide examples of minimum violations for each category. Marginal and moderate violations can be upgraded based on site-specific information gathered by regional personnel. Adherence to

these procedures ensures consistency among the regions and DEQ adherence to EPA requirements.

1. Serious Violations

The following are considered serious violations:

- No PSD permit
- No permit for Major Sources
- NESHAP standards violations
- Substantive NSPS standards violations at Major Point Sources
- A Major Source violating Virginia Air Regulations
- Refusal to stack test and/or submit stack test report
- Violations which cause actual documented NAAQS violations
- SAAC violations
- Throughput violations triggering PSD review
- Deliberately bypassing control equipment for Major Point Source
- Not maintaining control equipment for Major Point Source in a manner consistent with good air pollution control practice
- Failure to install, maintain, and operate federally required CEM equipment

2. Moderate Violations

The following are considered moderate violations:

- NSPS standards violations at SM Point Sources
- An SM/B Source violating Virginia Air Regulations
- Deliberately bypassing control equipment for SM Point Source
- Not maintaining control equipment for SM Point Source in a manner consistent with good air pollution control practice

3. Marginal Violations

The following are considered marginal violations:

- No permit for a B Point Source
- NSPS standards violations at B Point Sources

- Most reporting violations (including NESHAP reporting requirements)
- Throughput violation not triggering PSD review
- Deliberately bypassing control equipment for B Point Source
- Not maintaining B Point Source control equipment in a manner consistent with good air pollution control practice

B. CIVIL CHARGE CALCULATION

In providing for civil charges, the Code states that the size of the owner's business, the severity of the economic impact of the civil charge on the business, and the seriousness of the violation shall be considered. To address these requirements, the enforcement staff should incorporate the following in the civil charges: the economic benefit derived through noncompliance and an amount reflective of the severity of the violation. When developing a civil charge, due consideration should be given to the responses and actions of the source.

Civil charges are calculated using the "Civil Charge Calculation Worksheet" ("Worksheet"), which is found at the end of this section on the Air Program. The categories of violations are the numbered items that make up the Worksheet, which are further described below. When using the Worksheet to address multiple violations discovered during the same compliance determinant activity, charges are to be calculated for each violation, independently, with the exception of items 8 and 11, and then combined to provide the total proposed civil charge.

1. Permit or Regulatory Violations

This category is general in nature and is intended to establish a minimum charge for all violations of regulatory or permit requirements. This charge is in addition to any which may be applicable under item 4 of the Worksheet for the same violation. If the source is being assessed for violation of a PSD, NESHAP, or NSPS requirement, the applicable charges in item 1 are to be multiplied by 2.

To address this issue, a series of questions are provided on the Worksheet as follows:

a. **Is a permit required?** This civil charge is applicable to situations of construction/modification/reconstruction without a new source permit and to the failure to obtain an operating permit

b. **Is the source operating without the required permit?** This civil charge is applicable to situations of construction/modification/reconstruction without a new source permit where the source has begun operation of the source or point source affected by the permit applicability determination. This civil charge is assessed in addition to item 1.a.

c. **Is a permit/regulation violated?** This civil charge applies to violations of permit conditions and requirements of the Air Regulations.

2. Consent Order Violations

a. **Is a Consent Order condition violated?** This civil charge is assessed if the source has violated requirements of a Consent Order and is in addition to those civil charges that may be applicable in items 1, 3, or 4 of the Worksheet.

3. Pollution Control Equipment Violations

This civil charge is assessed for the failure to install or properly operate and maintain air pollution control equipment. The pertinent questions on the Worksheet are as follows:

a. **Is equipment installed?** In other words, are appropriate air pollution controls present? This civil charge is applicable to, but not limited to, situations of:

- Failure to install air pollution control equipment specifically required by permit or regulation, or removal of such equipment;
- Failure to install equipment necessary to meet BACT or LAER (in situations of construction/modification/reconstruction without a permit) as may be determined through the permit review process; or
- Failure to install control equipment capable of meeting emissions limits established by permit or regulations.

b. **If installed, is equipment operating properly?** In other words, are the air pollution controls operating properly? This civil charge applies to situations where the source neglects to operate the equipment or is not operating or maintaining the equipment adequately.

Note that assessment of item 3 civil charges is not limited to traditional end-of-the-pipe equipment but is also applicable to production equipment, particularly if this equipment has been identified as BACT/RACT/LAER. Also, careful consideration must be given to the assessment of this civil charge when assessed in combination with item 4 of the Worksheet. A situation could exist where the pollution controls are maintained and operated properly but an emission violation still occurs. It is not appropriate in this situation to assess a civil charge for improperly operated pollution control equipment, just the emissions violation.

4. Emission/Monitoring Violations

Located on the Worksheet are four questions related to emission/monitoring violations. The amount of the civil charge associated with the individual questions is based on the percentage over the emission limit for the emission violations and the type of violation for the

CEM violations. Table 1 establishes the civil charge based on the percentage over emission limit and the point source classification.

a. **Are there visible emission violations?** See Table 1.

b. **Are there emission standard violations?** See Table 1.

c. **Are there CEM violations?** Situations assessed under this category include other types of compliance assurance tracking/reporting, *i.e.* fuel certifications. CEM violations include:

- ***Continual Late Submittal of EER or Other Periodic Compliance Assurance Report.*** Add $500 to base amount on Worksheet. Ten days will be allotted to the source to submit the EER after notice of the violation. Another $200 per day will be charged for every day after the ten-day grace period. The civil charge under this category is calculated on an emissions unit basis, *i.e*, if the source must submit a quarterly report for three emissions units and two were late, the civil charge would be $1,000 with $400 added each day after the 10-day grace period.

  This civil charge is assessed commencing with the second consecutive late submittal of a required periodic compliance assurance report (*i.e.*, excess emissions report, monitoring system performance report, Data Assessment Report, fuel certification report, emissions report, etc). Reporting requirements include those found in §§ 9 VAC 5-40-50(C) and 9 VAC 5-50-50(C) of the Regulations, Subpart A (and other applicable Subparts) of NSPS, Appendix F of NSPS, consent orders, or permits.

- ***Failure to Perform Required Audits.*** Section 9 VAC 5-50-410 of the Regulations incorporates by reference those subparts of 40 CFR Part 60 that incorporate audit requirements. In addition, § 9 VAC 5-40-1780(D) of the Regulations requires audits be performed by those facilities subject to Rule 4-13. Add $1,500 to base amount in Worksheet. Two weeks will be allotted to the source to perform the audit. An additional $200 per day will be charged for every day past the two week grace period. The civil charge under this category is calculated on a monthly basis, *i.e.*, if the source must conduct a quarterly audit on three individual monitoring systems (excluding redundant back-up systems) and two were late, the civil charge would be $3,000 with $400 added each day after the ten-day grace period.

- ***Excessive Downtime on CEM.*** Section 9 VAC 5-50-410 of the Regulations incorporates by reference those subparts of 40 CFR Part 60 which include monitor availability requirements. In addition, § 9 VAC 5-40-1780(D) of the Regulations establishes monitor availability requirements for those facilities subject to Rule 4-13. Add $2,000 to base amount on Worksheet for each monitoring system which does not meet the required monitor availability.

d. **Are there toxic pollutant violations?** This civil charge is assessed to emissions and monitoring violations involving a toxic pollutant. A toxic pollutant is defined in the Regulations as "any air pollutant for which no ambient air quality standard has been established." The staff is reminded that, for "existing sources," the Regulations establish significant ambient air concentration "guidelines" for toxic pollutants. If the existing source is found to be in excess of a guideline, the Regulations provide specific alternatives to address the exceedence. Therefore, an existing source is not considered to be a toxic pollutant violator until or unless DEQ has notified it of the exceedence and the source has failed to respond as specified in § 9 VAC 5-40-220.

Where a violation involves exceedence of a permit limit for a toxic pollutant, a charge should be assessed for both the emission violation and the toxic pollutant.

5. Sensitivity of the Environment

This category focuses on the geographic location of the violation. Civil charges associated with this category are dependent on the nonattainment/attainment status or the PSD area classification and the classification of the violation. The sensitivity of the environment charge applies only to emission standards violations or to work practice or technology standards that serve as emission standards. When a violation occurs in a nonattainment area, the non-attainment charge applies only for violations involving pollutants or pollutant precursors for which the area is designated nonattainment. The description of the nonattainment areas and the PSD classifications are provided in the Regulations.

6. Preliminary Civil Charge Subtotal

Sum all assessed charges in items 1 through 5.

7. Length of Time Factor

The longer a violation continues uncorrected, the greater the potential for harm to air quality. The Worksheet addresses this consideration in the category labeled "Length of Time Factor." The charge is developed by multiplying the number of days the violation occurred by 0.274. The result of this calculation is the Percent (%) Increase Factor. This factor must be divided by 100 to obtain the decimal expression, which is then multiplied with the preliminary subtotal to obtain the additional civil charge. The time span (expressed in days) used to calculate the charge begins on the day, based on documented evidence, the violation began for emission violations and the day of discovery of the violation for administrative violations. The time span ends on the date the source agrees in principle to a set of corrective actions designed to achieve compliance with the regulatory requirement for which the charge(s) was (were) assessed. For

situations of construction without a permit, the time span ends when the source submits a *complete* permit application for the affected process or equipment.

The following is an example of how to calculate a "length of time" civil charge:

- ***Calculate the length of time in days that the noncompliance existed.*** For example, 200 days elapsed between the beginning day of the noncompliance and the date the source agreed in principle to a set of corrective actions necessary to return to a state of compliance.
- ***Multiply the number of days by 0.274.*** Take 200 and multiply it by 0.274 to get 54.8. You can round this up to whole numbers to get 55.
- ***Divide this number by 100. This yields the Length of Time Factor.*** 55 divided by 100 yields 0.55.
- ***Multiply the base amount of the civil charge calculated on the Worksheet by the Length of Time Factor.*** Assume for this example that the base amount is $1,000. 1,000 times 0.55 yields $550.
- ***Enter the calculated amount*** into the entry block in item 7 on the Worksheet.

8. Compliance History

The staff considers prior enforcement activities of the Air Law and Regulations in adjusting the civil charge based on the source's compliance history. Prior enforcement activities include any act or omission resulting in an enforcement response, as described in Chapter Two of this Manual. Warning Letters and NOVs that are not pursued would not be considered. This factor may be used to increase – but not decrease – a charge. Evidence of an excellent compliance history cannot be used as justification for reducing a civil charge on a current and unrelated violation. See Table 2.

9. Extended Compliance

"Extended compliance" means extending the date by which the source is required to comply with any compliance date(s). The extended compliance civil charge is intended to apply to situations where the proposed schedule is based upon limitations such as a reasonable construction or equipment delivery schedule. Compliance delays proposed for monetary considerations or for the sake of convenience (*i.e.*, to coordinate equipment installation with the routine annual maintenance shutdown) should only be accepted if the source demonstrates that the associated financial burden is beyond their "ability to pay."

If the source is proposing a schedule that will extend the compliance schedule, a calculated charge for such an extension is appropriate. The consent order shall include a schedule detailing important interim dates and the final date by which compliance will be achieved.

Federal Regulations list specific procedures for processing *Delayed Compliance Orders*. EPA maintains the authority to disapprove any DEQ approved Delayed Compliance Orders subject to the public participation guidelines described in 40 CFR §65.04. All proposed Delayed Compliance Orders shall be transmitted to the Central Office for review prior to entering into a consent order with that source.

If the source is proposing a schedule that will extend a compliance date, there will be a commensurate impact on air quality. A calculated charge for such an extension is appropriate; consequently, when a consent order includes a provision for such a schedule, the amount calculated for items 1-7 should be increased according to length of the extended compliance. Calculate the length of the extension, in months, and multiply this number by 2.78. This gives the percent increase due to the extended compliance. For compliance schedules of less than one month (30 days), calculation of an extended compliance charge is not necessary. Partial months (as determined on 30-day increments) will be assessed as a full month when calculating the extended compliance charge.

The following is an example of how to calculate an "extended compliance" civil charge:

- ***Calculate the length of time, in months (on a 30-day basis), compliance will be extended by execution of the order.*** For example, the schedule described in the consent order indicates a six-month (180 day) delay before compliance will be achieved.
- ***Multiply the number of months by 2.78.*** Take 6 and multiply it by 2.78 to get 16.68. You can round this up to whole numbers to get 17.
- ***Divide this number by 100. This yields the Extended Compliance Factor.*** 17 divided by 100 yields 0.17.
- ***Multiply the base amount of the civil charge calculated on the Worksheet by the Extended Compliance Factor.*** Continuing with this example, the base amount is $1,000. $1,000 times 0.17 yields $170.
- ***Write the calculated charge into the entry block in item 9 on the Worksheet.***

10. Economic Benefit of Noncompliance

Section 113(e) of the federal Clean Air Act states, in part, that in assessing civil penalties the "economic benefit of noncompliance" shall be taken into consideration. The reason for applying this factor in a civil charge is to ensure the charge acts as a deterrent to noncompliance. By developing a civil charge assessment structure that incorporates this deterrent effect, an enforcement action removes any economic gain that a source accrues by avoiding or delaying costs necessary to achieve compliance.

The existence of a significant economic benefit gained from noncompliance must be evaluated on a case-by-case basis. The inspector must use professional judgement when making the preliminary determination that an economic benefit exists. When there exists an indication of

an economic benefit based on delayed or avoided costs, the staff shall estimate the value of the economic benefit and include this amount in the proposed civil charge.

a. Delayed Versus Avoided Costs

A necessary first step when making a preliminary determination of an economic benefit is understanding the costs avoided or delayed through noncompliance. A delayed cost is an expenditure that, through current noncompliance, can be put off to sometime in the future. An avoided cost is an expenditure that will not be made due to noncompliance.

- Examples of delayed costs include, but are not limited to: failure to install equipment needed to meet emission control standards; failure to effect process changes needed to reduce pollution; failure to test where the test still must be performed; and failure to install required monitoring equipment.
- Examples of avoided costs include, but are not limited to: disconnecting or failing to properly operate and maintain existing pollution control equipment; failure to employ a sufficient number of staff; failure to adequately train staff; failure to establish or follow precautionary methods required by regulations or permits; removal of pollution equipment resulting in process, operational or maintenance savings; disconnecting or failing to properly operate and maintain required monitoring equipment; and operation and maintenance of equipment that the violator failed to install.

b. Adjustments to the Calculated Economic Benefit

The inspector may have insight into conditions that affect the amount of the calculated economic benefit. The regional staff should describe:

- **Conditions that indicate economic benefit is insignificant.** The significance of an economic benefit must be determined on a case-by-case basis. The relative insignificance of the economic benefit depends on the impact it will have on the violation and the size of civil charges exclusive of the economic benefit calculation.
- **Compelling public concern.** Compelling public concern as a basis for mitigating the economic benefit amount may be significant when the amount of the economic benefit calculated may result in an extreme financial burden and there is important public interest in retaining the source. Public concern may be a factor where the violators are public entities.
- **Existing administrative action or order.** Where a source is in the process of settling a previous civil charge it may be appropriate to consider adjustments to the economic benefit calculation.

11. Charge Adjustment Calculation

In order to promote equity in the process of assessing a civil charge, the process for developing a civil charge must be flexible enough to account for factors that are unique to each source. The incorporation of case-by-case mitigating factors, however, must be done in a manner that does not sacrifice consistency. This is accomplished by establishing "adjustment factors" that provide a basis for distinguishing among individual enforcement actions. For the purposes of civil charge adjustment, these factors are: degree of willfulness or negligence, degree of cooperation, and environmental damage.

The calculated charge for the Worksheet *excluding the economic benefit calculation* can be reduced by up to 30% for cooperation and a good faith effort to comply with regulatory requirements or permit conditions. These good faith efforts could come in the form of prompt reporting of noncompliance, prompt correction of environmental problems, and cooperation during pre-filing investigation. The degree of cooperation is the only basis for reducing a civil charge. The degree of willfulness or negligence and environmental damage are only applicable in this context as reasons for increasing the civil charge.

- **Civil Charge Disclosure** - It is the DEQ's approach to be totally open with the source and the public regarding the worksheet and the basis for the civil charge.
- **Additional Civil Charge Reduction** - The total civil charge may be reduced by more than 30% if extraordinary circumstances exist. Additional reductions must be evaluated by OEC for consistency and approved by the Regional Compliance and Enforcement Manager.

The Worksheet has a category entitled "Charge Adjustment Calculation," which is used to calculate the adjustment to be applied to the total charge. This category should contain the amount of any charge reduction and the charge adjustment factor. The civil charge adjustment factor shall be applied to the total charge *after the economic benefit amount has been subtracted.* The final Charge Adjustment is then subtracted from the total calculated civil charge to obtain the final assessed civil charge.

C. ABILITY TO PAY A CIVIL CHARGE

The overriding mitigating factor in adjusting civil charges and economic benefit is the source's ability to pay. DEQ must consider reducing the amount assessed on a violation when that amount is beyond the violator's means.

Table 1.

OPACITY AND EMISSION LIMIT VIOLATIONS

MONETARY CIVIL CHARGE MATRIX

% over allowed opacity limitation	SOURCE CLASSIFICATION		
	A	SM	B
10	$200	$100	$50
20	300	150	100
30	400	250	150
40	500	350	200
50	600	450	250
60	700	550	300
70	800	650	350
80	900	750	400
90	1,000	850	450
100	1,100	950	500
200	2,000	1,500	1,000
300	5,000	3,000	1,500
400	10,000	6,000	2,000

OPACITY VIOLATION EXAMPLE:

An SM source is allowed 5% opacity for a baghouse controlling a point source. Method 9 shows 40% opacity. Calculate the assessment for the opacity violation.

1. **Subtract the allowed limitation (5%) from the results from Method 9 (40%) to obtain the % OVER.** In this case, the resultant is 35%.
2. **Locate the % OVER in Table 1. above.** The table reports percentages in steps of 10%. Read 30% ($250) and 40% ($350) and record these same numbers.

$$\frac{35-30}{40-30} x(350-250) = \$\,300\ Civil\ Charge$$

3. **Interpolate to determine the charge for the opacity violation.**

Table 2.

COMPLIANCE HISTORY (previous 36 months)

Number of Violations	Charge Factor
Second Violation	.50
Third Violation	1.00
Over Third Violation	(N–3)+1.00

TO CALCULATE A COMPLIANCE HISTORY CHARGE

1. ***Review the sources compliance history to determine if any additional violations were noted during the previous 36 months.*** For example, the source had a previous NOV issued 14 months prior to the currently pending enforcement action (do not include additional violations which were discovered as part of the same inspection).
2. ***Look up on the above table and determine the appropriate factor to adjust the civil charge.*** The current enforcement action represents the second violation in 36 months so the Charge Factor is 0.50 (or 50%).
3. ***Multiply the base amount of the civil charge calculated on the Worksheet by the Charge Factor.*** From the example above the base charge is $1,000. Multiplying $1,000 by 0.5 yields $500.
4. ***Write the calculated amount of the civil charge into the entry block in item "8. Compliance History" on the Civil Charge Calculation Worksheet.***

Civil Charge Calculation Worksheet Revised 12/98			Violations		
			Serious	Moderate	Marginal
1. Permit Violation - Multiply by 2 if PSD/NESHAPs/or NSPS					
a. Is a permit required? (if No, go to 1.c below)	Yes	No	$6,000	$2,000	$1,000
b. Is the source operating without the required permit?	Yes	No	$4,000	$2,000	$1,000
c. Is a permit/regulation violated? (excluding 4 below)	Yes	No	$2,000	$1,000	$600
2. [illegible] Violation					
a. Is a Consent Order condition violated?	Yes	No	$4,000	$2,000	$1,000
3. [illegible]					
a. Is equipment installed? (If no, assess charge, go to 4)	Yes	No	$10,000	$6,000	$2,000
b. If installed, is equipment operating properly?	Yes	No	$10,000	$6,000	$2,000
4. Emission/Monitoring Violations					
a. Visible Emissions	Yes	No	See Table 1		
b. Emission Standards or Limits	Yes	No	See Table 1		
c. CEM Violations	Yes	No	See Table 2		
d. Toxic Pollutant	Yes	No	$2,000	$1,000	$600

a. Nonattainment area		$4,000	$2,000	$1,000
b. Class I PSD area		$2,000	$1,000	$600
c. Class II and III PSD area		$1,000	$400	$200
		See Table 3		
		See Table 4		
		See Table 5		
		BEN Model		
		Factor =		

II. THE WASTE PROGRAM

DEQ negotiates with parties for the payment of civil charges for past violations in an order issued by the Waste Management Board pursuant to the Waste Management Act, Va. Code § 10.1-1455. The maximum limit for a civil charge is $25,000 for each violation, with each day being a separate violation.

A. CONSENT ORDERS WITHOUT CIVIL CHARGES

As an initial matter, the enforcement staff determines whether the alleged violation is of a nature to warrant a civil charge. The following basic criteria should be met in all such cases without civil charges: there has been no or minimal environmental impact, the facility is not a chronic facility, and the facility is making a good-faith effort to comply. The emphasis in all cases, but particularly in cases without civil charges, should be on prompt and appropriate injunctive relief. No civil charge or economic benefit need be computed for cases qualifying under this section.

B. CONSENT ORDERS WITH CIVIL CHARGES

Civil charges are calculated for all waste programs using the Waste Civil Charge Worksheet, which is found at the end of the Waste Program section. A separate Worksheet is completed for each alleged violation. Multiple violations that arise out of a single act or omission may be consolidated into a single violation for purposes of calculating civil charges. In no case may the total civil charge for a single violation exceed the statutory maximum of $25,000 per day of violation.

In calculating the appropriate civil charge, enforcement staff addresses the following seven components which are discussed in greater detail below.

- Gravity-based component, which is calculated before any adjustments are made
- "Multi-day" component, as appropriate, to account for continuing violations
- The facility's degree of culpability
- The facility's compliance history
- Economic benefit of noncompliance, if appropriate
- An adjustment component, to include cooperativeness/quick settlement, promptness of injunctive relief/good faith effort to comply, and strategic considerations
- Ability to pay

C. GRAVITY-BASED COMPONENT

The gravity-based component is assessed based on the violation's "potential for harm" and the extent to which the violation deviates from the regulatory requirement, which is facility's status as SNC or SV.

1. Potential for Harm

There are three categories of "potential for harm" into which a violation may be placed which are "Serious," "Moderate," and "Marginal." These categories are used throughout the Worksheet for each component.

- **SERIOUS:** (1) The violation has caused actual exposure or presents a *substantial risk* of exposure of humans or other environmental receptors to waste or constituents; and/or (2) the actions have or may have a *substantial adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program.
- **MODERATE:** (1) The violation presents or may present a *significant risk* of exposure of humans or other environmental receptors to waste or constituents; and/or (2) the actions have or may have a *significant adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program.
- **MARGINAL:** (1) The violation presents or may present a *relatively low risk* of exposure of humans or other environmental receptors to waste or constituents; and/or (2) the actions have or may have a *small adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program.

A facility is placed into one of these categories based on: (1) the extent of risk of exposure of humans or other environmental receptors, and/or (2) the effect on the regulatory program.

a. **Risk of Exposure.** Risk of exposure involves both the probability of exposure and potential consequences that may result from exposure.

- *Probability of Exposure.* Where a violation involves the actual management of waste, a civil charge should reflect the probability that the violation could have or has resulted in a release of waste or constituents or could have or has resulted in a condition that creates a threat of exposure to waste or waste constituents. The likelihood of a release is determined based on whether the integrity and/or stability of the waste management unit is likely to have been compromised. Some factors to consider in making this determination are: (1) evidence of release (*e.g.*, existing soil or groundwater contamination), (2) evidence of waste mismanagement (*e.g.*, rusting drums), and (3) adequacy of provisions for detecting and preventing a release (*e.g.*, monitoring equipment and inspection

procedures). A larger civil charge is presumptively appropriate where the violation significantly impairs the ability of the waste management system to prevent and/or detect releases of waste and constituents.

- *Potential Consequences*. In calculating risk of exposure, enforcement personnel weigh the harm that would result if the waste or constituents were in fact released to the environment. Some factors to consider in making this determination are: (1) quantity and toxicity of wastes (potentially) released; (2) likelihood or fact of transport by way of environmental media (*e.g.*, air and groundwater); and (3) existence, size, and proximity of receptor populations (*e.g.*, local residents, fish and wildlife, including threatened or endangered species) and sensitive environmental media (*e.g.*, surface waters and aquifers).

In considering the risk of exposure, the emphasis is placed on the potential for harm posed by a violation rather than on whether harm actually occurred. The presence or absence of direct harm in a noncompliance situation is something over which the facility may have no control. Such facilities should not be rewarded with lower civil charges simply because the violations happened not to have resulted in actual harm.

b. **Effect on the regulatory program.** There are some requirements of the Waste Program that, if violated, may not likely give rise directly or immediately to a significant risk of contamination. Nonetheless, all regulatory requirements are fundamental to the continued integrity of the regulatory program. Violations of such requirements may have serious implications and merit a substantial civil charge where the violation undermines the statutory or regulatory purposes or procedures for implementing the regulatory program. Examples of regulatory harm include, but are not limited to:

- Failure to notify as a generator or transporter of hazardous waste and/or owner of a hazardous waste facility
- Failure to comply with financial assurance requirements
- Failure to submit a timely/adequate solid waste Part B application
- Failure to respond to a formal information request
- Operating without a permit or interim status
- Failure to prepare or maintain a hazardous waste manifest
- Failure to install or conduct adequate groundwater monitoring.
- Certain failures to comply with record keeping that undermine DEQ's ability to determine compliance

2. Extent of Deviation: SNC/SV Status

The extent to which the violation deviates from the regulatory requirement is the second factor considered in assessing the gravity-based component. For hazardous waste, the extent of deviation is based on the status of a facility as SNC or SV under the 1996 EPA Enforcement Response Policy. This determination will normally already have been made as part of the enforcement referral process.

For purposes of evaluating non-hazardous solid waste civil charges, violations that result in enforcement referral are SNC. Other violations that, by themselves, do not cause the referral are SV.

D. MULTI-DAY COMPONENT

The multi-day component is assessed for days 2 through 180 of continuing violations. This component is calculated by multiplying the number of days of continuing violations ("n") by the factor in the appropriate matrix cell. Use of a multi-day component beyond 180 days is discretionary. The "potential for harm" determination already made for calculation of the gravity-based component is used to select the appropriate cell on the Worksheet for this component. Use of a multi-day component is presumed for days 2 through 180 of all violations that caused a facility to be designated as a SNC. The multi-day component may be waived where good cause for waiver is documented in the ERP.

E. DEGREE OF CULPABILITY

Under this provision, the civil charge is increased if there is substantial evidence that the alleged violation was caused by the negligence of the facility or by a deliberate act of the facility. The "potential for harm" determination already made for calculation of the gravity-based component is used to select the appropriate cell on the Worksheet for this component.

For purposes of calculating the civil charge on the Worksheet, violations of Consent Orders are presumed to be the result of either a negligent or a deliberate act of the facility.

F. COMPLIANCE HISTORY

This provision increases the civil charge for repeat violations of the same requirement within at least the previous 36 months of the violation. In evaluating this factor, it should be remembered that the owner's history is at issue, not the facility's. Consequently, for example, if a facility with a history of noncompliance is purchased or taken over by a new owner with little or no such history, this factor component may not be assessed.

The "potential for harm" determination already made for calculation of the gravity-based component is also used to select the appropriate cell on the Worksheet for this component.

G. ECONOMIC BENEFIT OF NONCOMPLIANCE

This provision recovers the economic benefit of noncompliance derived from the violation. This factor may be calculated with the EPA computer model BEN. The calculation is made based on the Cumulative Subtotal arrived at on the Worksheet before adjustments, if any, are made.

The intent is to recoup the economic benefit of noncompliance in all cases. There are four general areas, however, where settling for less than the total civil charge amount for less than the economic benefit may be appropriate. The four exceptions are:

- The economic benefit component consists of an insignificant amount (*i.e.*, less than $2500).
- There are compelling public concerns that would not be served by taking a case to trial.
- It is unlikely, based on the facts of the particular case as a whole, that DEQ will be able to recover the economic benefit in litigation.
- The facility has documented an inability to pay the total proposed civil charge.

F. ADJUSTMENT FACTORS

The civil charge Cumulative Subtotal – *excluding the economic benefit of noncompliance calculation* – may be reduced by up to 30% based on several factors where there are clearly documented case-specific facts that support the adjustment. Those factors include cooperativeness/quick settlement, promptness of injunctive response/good faith effort to comply, and strategic considerations. Any decision whether or not to apply any adjustments is within the sole discretion of the appropriate DEQ management. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

1. Cooperativeness/Quick Settlement

An adjustment may be provided where the facility is cooperative in resolving the case in a timely and appropriate manner and it makes a good faith effort to settle the violations quickly.

2. Promptness of Injunctive Response/Good Faith Effort to Comply

Good faith efforts to comply with regulatory requirements or permit conditions could come in the form of prompt reporting of noncompliance or prompt correction of environmental problems. A reduction may be given to facilities that promptly initiate corrective actions in response to violations. Consideration should be given to institutional or legal limitations on corrective actions. For example, a municipality may be unable to institute corrective action

immediately because of funding procedures. Owners who agree to expedited corrective action schedules may qualify for this reduction. Also, the replacement of facility management who might have been unresponsive to violations, unbeknownst to facility owners, may be considered.

In evaluating this reduction factor, it is appropriate to consider the effectiveness and quality of DEQ notification, compliance assistance, and general customer service given to the facility following violations or identification of compliance problems.

3. Strategic Considerations

Strategic considerations include litigation potential, the precedential value of the case, the size of the facility, problems of proof in the case, impacts or threat of impacts (or lack thereof) to human health or the environment, and probability of meaningful recovery of civil charges and/or costs.

H. ABILITY TO PAY

A reduction based on inability to pay may be considered in a case where the facility has demonstrated that a significant economic hardship would result from the full civil charge. The burden to demonstrate inability to pay rests on the facility. The EPA computer models ABEL, INDIPAY, or MUNIPAY may be used to evaluate ability to pay.

If a facility cannot pay the civil charge otherwise called for by this policy or would be prevented from carrying out essential remedial measures by paying the full amount, the following options should be considered in the order presented:

- Installment payment plan with interest
- Delayed payment schedule with interest
- Reduction based on ability to pay modeling

WASTE CIVIL CHARGE WORKSHEET

			Potential For Harm		
Violation No.			Serious	Moderate	Marginal
1. Gravity-based component					
a. Does violation meet SNC criteria?	Y	N	20,000	8,000	1,500
b. Does violation meet SV criteria?	Y	N	11,000	3,000	100
c. Gravity-based subtotal					
2. Multi-day component (n = number of days of continuing violation)					
a. Does the multi-day component apply? If no, go to #3.	Y	N			
b. Does violation meet SNC criteria?	Y	N	1,000 x n	400 x n	100 x n
c. Does violation meet SV criteria?	Y	N	550 x n	150 x n	100 x n
d. Multi-day subtotal					
3. Degree of culpability.					
a. Is there substantial evidence of Willfulness or negligence?	Y	N	5,000	3,000	1,500
b. Culpability subtotal					
4. Compliance history.					
a. For an SNC, has this violation occurred before within the past 36 months?	Y	N	5,000	3,000	1,500
b. For an SV, has this violation occurred Before within the past 36 months?	Y	N	4,000	2,000	400
c. Compliance history subtotal					
5. Cumulative Subtotal (lines 1c+2d+3b+4c)					
6. Economic benefit of noncompliance					
TOTAL					

III. THE WATER PROGRAM

The State Water Control Law ("Water Law") at Code § 62.1-44.32 provides for the inclusion of negotiated civil charges in Consent Orders with a facility for violations of the Water Law and Regulations. The maximum limit for a civil charge is $25,000 for each violation, with each day being a separate violation.

The procedures in Part B of this section address the calculation of civil charges under the Water Law and Regulations for settlement purposes in VPDES, VWPP, VPA, GWPP, AST, and UST cases. Part C of this section addresses the calculation of civil charges for confined animal feeding operations ("CAFOs"). Under Code § 62.1-44.17:1(J), permittees in violation of CAFO general permits are subject to a maximum of $2,500. Part D of this section addresses calculation of civil charges for oil spills, which have a unique civil charge scheme under § 62.1-44.34:20 of up to $100 per gallon of petroleum released to the environment.

A. CONSENT ORDERS WITHOUT CIVIL CHARGES

Consent Orders can be executed without civil charges when in DEQ's judgment it is in the best interest of public health or the environment, or both. The following basic criteria should be met in all cases without civil charges: there has been no or minimal environmental impact, the facility is not a chronic facility, and the facility is making a good-faith effort to comply. The emphasis in all cases, but particularly in cases without civil charges, should be on prompt and appropriate injunctive relief. No civil charge or economic benefit need be computed for cases qualifying under this section. Assuming the basic criteria are met, the following types of cases may qualify. This list is illustrative and not intended to be exhaustive.

- Municipal VPDES (major or minor) upgrade or expansion or collection system correction delayed due to the inability to secure funding.
- Where interim limits are needed pending connection to municipal wastewater treatment system or a larger regional wastewater treatment system.
- Minor VPDES permittees, such as trailer courts operating lagoons or other antiquated systems that will eventually shut down or be connected to a sewer system.
- Violations resulting from unavoidable or unforeseeable events, and also of short duration with little or no environmental impact, but not including violations of reporting requirements.

B. CONSENT ORDERS WITH CIVIL CHARGES

Civil charges are generally appropriate in Consent Orders when one or more of the following criteria are met: failure to respond to technical assistance efforts, violation of enforcement orders without mitigating circumstances, violations that are avoidable, noncompliance that is continuing or likely to recur, knowing violations, or violations resulting in environmental damage.

Before calculating the civil charge, the statutory maximum civil charge ($25,000 per violation per day in most cases) is estimated to determine the maximum liability of the facility. This can be useful information in negotiations, as facilities should be mindful of the liability they might face in a judicial proceeding.

To calculate the appropriate civil charge in an administrative settlement:

- Determine the civil charge per violation, generally on a "per month" of violation basis for effluent limits and failure to report and on a "per event" basis for violations such as unpermitted discharges or failure to implement proper operations and maintenance procedures;
- Estimate the cost of injunctive remedies needed to resolve the case;
- Determine economic benefit; and
- Then use these values to determine the baseline civil charge.

The baseline civil charge may be reduced based on the following factors: size and type of facility, history of recalcitrance, promptness of injunctive response, quick settlement adjustment, litigation considerations, and ability to pay. As noted above, the final recommended civil charge cannot exceed the statutory maximum amount.

1. Charge Per Violation/Gravity Component

When civil charges are warranted, the civil charge is determined using the Water Civil Charge Worksheet, which is found at the end of Section B. Effluent limitation charges and other ongoing violations are added on a monthly basis. "Per event" charges are added on a one-time basis. These charges would generally be capped at $50,000 per month.

The amounts on the Water Civil Charge Worksheet include a gravity component that is measured as "Serious," "Moderate" or "Marginal" and takes environmental impact and the severity of the alleged violation into consideration. Environmental impact considerations evaluate the site-specific occurrence of or likelihood of impacts or damage to human health or the environment. Severity considerations examine whether the violations or pattern of violations at issue are those that are fundamental to the continued integrity of the regulatory program. Violations of such requirements may have serious implications and merit substantial civil charges where the violation undermines the statutory or regulatory purposes or procedures for implementing the regulatory program.

The three categories are defined as follows:

- **SERIOUS**: (1) The violation has impacted or presents an *imminent and substantial risk* of impacting human health and/or the environment such that serious damage has resulted or is likely to result, and/or (2) the actions have or may have a *substantial*

adverse effect on statutory or regulatory purposes or procedures for implementing the regulatory program. Examples include fish kills, effluent violations resulting in loss of beneficial uses, failure to report an unpermitted discharge, or chronic refusal to apply for a permit or perform TMP.

- **MODERATE**: (1) The violation presents or may present *some risk* of impacting the environment, but those impacts would be minimal and correctable in a reasonable period of time, and/or (2) the actions have or may have a *noticeable adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program. Examples include unpermitted discharges resulting in identifiable sedimentation into state waters, failure to observe BMPs in VWPP permits, preventable accidents, or chronic late submission of monitoring reports or permit application materials.
- **MARGINAL**: (1) The violation presents *little or no risk* of environmental impact, and/or (2) the actions have or may have a *little or no adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program. Examples include, but are not limited to: an improperly completed DMR, minor exceedances (*i.e.*, less than or equal to 10% of the allowable limit) in land application with no impact to ground or surface water.

2. Cost of Injunctive Remedy

The cost of the injunctive remedy necessary to bring the facility back into compliance should be estimated for later use in the calculation.

3. Economic Benefit

The removal of the economic benefit of noncompliance serves to place the facility in the same position it would have been if compliance had been achieved on time. Both deterrence and fairness require that the civil charge include, as appropriate and practicable, an additional amount to ensure that the facility is economically worse off than if it had obeyed the law.

Facilities that violate the Water Law may have obtained an economic benefit as a result of delayed or completely avoided pollution control expenditures during the period of noncompliance. Commonly delayed or avoided expenditures include, but are not limited to:

- Monitoring and reporting (including costs of the sampling and proper laboratory analysis)
- Capital equipment improvement or repairs, including engineering design, purchase, installation, and replacement
- Operation and maintenance expenses (*e.g.*, labor, power, chemicals) and other annual expenses

- One-time acquisitions (such as equipment or real estate purchases)

EPA's BEN model is a method for calculating economic benefit from delayed and avoided expenditures. Refer to the "BEN User's Manual" for specific information on the operation of BEN. If the economic benefit exceeds $10,000, BEN should be used to calculate benefit. BEN uses thirteen data variables, of which eight contain default values. The five required variables are information about capital and non-capital costs, annual operation and maintenance costs, and the dates for the period of noncompliance. BEN allows a cooperative facility to provide actual financial data that may affect the civil charge calculation. For economic benefit calculations of less than $10,000 or where the facility will not or cannot provide financial data in a timely manner, staff may make estimates based on available resources, including their best professional judgment.

4. Baseline Civil Charge

One of the main purposes of assessing a civil charge is to ensure significant economic benefit is not gained from failure to comply with the law and regulations. Thus, the baseline civil charge takes into consideration the gravity-based component (cost of the violations), the cost of injunctive relief (what the facility will have to pay to correct the problem), and the economic benefit from noncompliance.

The following steps are taken to determine the Baseline Civil Charge, as set forth on the Worksheet:

- The Gravity-based Component is calculated based on the civil charge assessed per violation and any aggravating factors.
- The Cost of Injunctive Relief (what the facility will have to pay to correct the violations) is estimated.
- These two numbers are added together to get the "out-of-the-pocket" cost of the violations, which is called the Violation/Cost Combined Total.
- The Violation/Cost Combined Total is then compared to the Economic Benefit of Noncompliance, which is determined using the BEN model.
    - If the Violation/Cost Combined Total is less than the Economic Benefit figure, the Economic Benefit number is used for further calculation.
    - If the Violation/Cost Combined Total is greater than the Economic Benefit figure, the Violation/Cost Combined Total is used for further calculation.
- Since the facility will be expending funds to correct the violations (*i.e.*, cost of injunctive relief), that amount is subtracted from the last number calculated above. This number is called the Baseline Civil Charge. By subtracting the cost of injunctive relief, the Baseline Civil Charge number recognizes that, by expending these funds to

correct the violations, that portion of the economic benefit gained from not doing so earlier is substantially captured through payment of these expenses.

The total Baseline Civil Charge cannot exceed the total statutory maximum of $25,000 per violation per day of violation.

5. Adjustments

The baseline civil charge may be reduced up to 30% based on several factors, including size and type of facility, history of recalcitrance, promptness of injunctive response, quick settlement adjustment, litigation considerations, and ability to pay. Any decision whether or not to apply any adjustments is within the sole discretion of the appropriate DEQ management and the State Water Control Board, when it is in session. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

a. **Size and type of facility/owner.** Reductions are appropriate for small facilities. Such a reduction, however, may not be appropriate for a small facility owned by a large corporation. Facilities providing a critical community service (*e.g.*, municipal plants, hospitals and schools) are appropriate for this reduction.

b. **History of compliance.** A reduction is appropriate if the owner's history of recalcitrance is limited or nonexistent. In evaluating this factor, it should be remembered that the owner's history is at issue, not the facility's. Consequently, for example, if a facility with a long history of recalcitrance is purchased or taken over by a new owner with little or no history or recalcitrance, a reduction for this factor may be justified.

c. **Cooperativeness/quick settlement.** A reduction may be given to a facility that makes good faith efforts to settle the alleged violations quickly.

d. **Promptness of injunctive response/good faith effort to comply.** Good faith efforts to comply with regulatory requirements or permit conditions could come in the form of prompt reporting of noncompliance or prompt correction of environmental problems. A reduction may be given to facilities that promptly initiate corrective actions in response to violations. Consideration should be given to institutional or legal limitations on corrective actions: for example, a municipality may be unable to institute corrective action immediately because of funding procedures. Owners who agree to expedited corrective action schedules may also qualify for this reduction. Also the replacement of facility management who might have been unresponsive to violations, unbeknownst to facility owners, may be considered.

In evaluating this reduction factor, it is appropriate to consider the effectiveness and quality of DEQ notification, compliance assistance, and general customer service given to the facility following violations or even identification of compliance problems.

e. **Ability to pay.** A reduction based on inability to pay may be considered in a case where the facility has demonstrated that a significant economic hardship would result from the full civil charge. Any facility that qualifies under the ABEL procedure will receive the maximum adjustment for this factor.

f. **Strategic considerations.** Strategic considerations include litigation potential, the precedential value of the case, problems of proof in the case, impacts or threat of impacts (or lack thereof) to human health or the environment, and probability of meaningful recovery of civil penalties and/or costs.

6. Final Recommended Civil Charge

The Baseline Civil Charge minus the adjustments from section five results in the Final Recommended Civil Charge. The ERP must demonstrate the justifications for these calculations and contain approvals from appropriate DEQ management before proceeding to final negotiations with the facility to settle the case. In the event that facts are gleaned during the negotiations that would prompt further adjustment of the Final Recommended Civil Charge, the ERP must be amended accordingly. Clearly documented, case-specific facts may justify adjustment of the Final Recommended Civil Charge for settlement purposes.

WATER CIVIL CHARGE WORKSHEET

1. Gravity-based Component			Serious	Moderate	Marginal	
a. Violations and Frequency *per MONTH unless noted*			$$ x occurrences	$$ x occurrences	$$ x occurrences	SUBTOTAL
Effluent Limits	Y	N	1K x ___	500 x ___	200 x ___	
Operational Deficiencies	Y	N	1K x ___	500 x ___	200 x ___	
Monitoring/Submissions	Y	N	1K x ___	500 x ___	200 x ___	
Bypasses/ Overflows *per day*	Y	N	500 x ___	300 x ___	100 x ___	
Spills/Unpermitted Discharge/Withdrawal *per event*	Y	N	10K x ___	5K x ___	1K x ___	
Compliance/Construction/Payment Schedules	Y	N	1K x ___	500 x ___	200 x ___	
No Permit/ODCP	Y	N	2K x ___	1K x ___	500 x ___	
Failure to Report *per event, per month*	Y	N	10K x ___	5K x ___	1K x ___	
					Subtotal #1a	
b. Aggravating Factors as Multipliers						
Major Facility?	Y	N	Subtotal #1a x .2			
Consent/Judicial Order Violations?	Y	N	Subtotal #1a x .5			
Deliberate Act?	Y	N	Subtotal #1a x .5			
					Subtotal #1b	
GRAVITY BASED COMPONENT TOTAL (Add Subtotal #1a and Subtotal #1b)					TOTAL #1	
2. Cost of Injunctive Remedy *estimated*					TOTAL #2	
3. Violation/Cost Combined Total						
Add TOTAL #1 and TOTAL #2					TOTAL #3	
4. Economic Benefit of Noncompliance *calculated from BEN*					TOTAL #4	

5. Baseline Civil Charge		
If TOTAL #3 (Viol./cost) is GREATER than TOTAL #4 (Econ. ben.), record TOTAL #3 result as SUBTOTAL #5a. If TOTAL #3 (Viol./cost) is LESS than TOTAL #4 (Econ. ben.), record TOTAL #4 as SUBTOTAL #5a	SUBTOTAL #5a	
BASELINE CIVIL CHARGE TOTAL (Subtract TOTAL #2 (cost inj.) from TOTAL #5a, record as TOTAL #5)	TOTAL #5	

6. Adjustments *circle all which apply*					
Size/Type of Facility Owner	History of Compliance	Cooperativeness/ Quick Settlement	Promptness of Injunctive Response/Good Faith Effort to Comply	Ability to Pay	Strategic Considerations

Maximum decrease 30% of Total #5	TOTAL #6	

7. Final Recommended Civil Charge	
TOTAL	

C. CAFO CONSENT ORDERS WITH CIVIL CHARGES

Under Code § 62.1-44.17:1(J), permittees in violation of CAFO general permits are subject to a maximum civil charge of $2500.

Using the CAFO Civil Charge Worksheet, which follows Section C, staff assess appropriate civil charges on a per settlement action basis. Aggravating factors, including threats to human health and safety, environmental damage, consent order or judicial decree violation or any evidence of deliberate acts or omissions are then assessed to determine the Baseline Civil Charge.

Thereafter, an adjustment of up to 30% may be taken based on the following factors: size and type of facility owner; history of compliance; cooperativeness/quick settlement; promptness of injunctive response/good faith effort to comply; ability to pay; and strategic considerations. These adjustment factors are discussed in the previous section. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

The Baseline Civil Charge minus adjustments results in the Final Recommended Civil Charge. In the event that facts are gleaned during the negotiations that would prompt further adjustment of the Final Recommended Civil Charge, the ERP must be amended accordingly. Clearly documented, case-specific facts may justify adjustment of the Final Recommended Civil Charge for settlement purposes. In no event may the final recommended civil charge for CAFO general permit violations exceed $2500. However, onsite violations not addressed under the CAFO section of the Water Law (*e.g.*, such as discharges of pollutants to state waters without a permit) should be assessed separately using the general water civil charge procedures.

CAFO CIVIL CHARGE WORKSHEET

a. Violations *count each violation per INSPECTION unless otherwise noted*	$$$	# of occurrences	$ Subtotal
Failure to monitor soils, waste or groundwater	1,000		$
Failure to maintain records	500		$
Failure to calibrate equipment; on NMP, manufacturers or O&M manuals on site	500		$
Improper documentation of liner, seasonal high water table, siting, design and construction	500		$
Improperly precharged lagoon, insufficient freeboard	1000		$
Improper sludge removal, inadequate vegetative cover, trees or brush on berm	500		$
NMP Violations *per incident*: Maximum waste application exceeded, inadequate crop condition, improper crop rotation, waste applied outside spreading schedule	1000		$
Maximum nutrient loading exceeded, evidence of breeched buffers, runoff or erosion, *per incident*	1000		$
Animal units exceeded	1000		$
NMP not timely revised	1000		$
Other	500		$
	SUBTOTALS		$

b. Aggravating Factors as Multipliers *multiply the Subtotal $$ by 2.5 if any of the following factors apply (circle)*

Threat to Human Health or Safety	Environmental Damage	Consent/Judicial Order Violation	Evidence of Deliberate Act or Omission

$

Promptness of Injunctive Response/Good Faith Effort to Comply	Size/Type of Facility Owner	History of Compliance	Ability to Pay	Cooperation/ Quick Settlement	Strategic Considerations

$

D. OIL SPILL CONSENT ORDERS WITH CIVIL CHARGES

Oil spills are subject to a unique civil charge scheme under § 62.1-44.34:20 in which civil charges are to be calculated based upon the amount of petroleum released into the environment in violation of Code § 62.1-44.34:14 *et seq.*, up to $100 per gallon.

Using the Oil Spill Civil Charge Worksheet, which is found after this section, staff evaluate and assess a dollar value of from $0 to $100 for each of seven statutory factors, including: willfulness of violation; damage or injury to state waters or beneficial uses; history of noncompliance; actions undertaken in reporting, containing, and cleaning up the discharge; cost of containment and clean up; nature/degree of injury to health, welfare or property; and available technology to prevent, contain, reduce or eliminate the discharge.

The dollar value for each of the seven statutory factors is then added, and the total divided by seven to provide an average "per gallon" civil charge figure. This civil charge figure is then multiplied by the total number of gallons of petroleum released to the environment to determine the Baseline Civil Charge.

Thereafter, an adjustment of up to 30% may be made based on the following factors: size and type of facility owner; history of compliance; cooperativeness/quick settlement; promptness of injunctive response/good faith effort to comply; ability to pay; and strategic considerations. These adjustment factors are discussed in Section B above. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

The Baseline Civil Charge minus adjustments results in the Final Recommended Civil Charge. In the event that facts are gleaned during the negotiations that would prompt further adjustment of the Final Recommended Civil Charge, the ERP must be amended accordingly. Clearly documented, case-specific facts may justify adjustment of the Final Recommended Civil Charge for settlement purposes.

OIL SPILL CIVIL CHARGE WORKSHEET

i. Willfulness of Violation	$ Amount
	$
ii. Damage/Injury to State Waters or Impairment of Beneficial Use	
	$
iii. History of Non-Compliance	
	$
iv. Actions in Reporting/Containing/Cleaning Up the Discharge	
	$
v. Cost of Containment and Clean Up	
	$
vi. Nature/Degree of Injury to Health, Welfare and Property	
	$
viii. Available Technology to Prevent/Contain/Reduce/Eliminate Discharge	
	$
SUBTOTAL	$
(Subtotal _____) ÷ 7 = _____ ÷ 7 = _____ x (Gallons released to the environment _____) =	$

Promptness of Inj. Response Good Faith Effort to Comply	Size/Type of Facility Owner	History of Compliance	Ability to Pay	Cooperation Quick Settlement	Strategic Considerations
				TOTAL	$

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

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Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

December 12, 2000

Mr. John Barnes, Environmental Manager
Omega Protein Incorporated
7393 Northumberland Highway
Heathsville, Virginia 22473

Privileged Settlement Communication

RE: Adjusted Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Barnes:

Enclosed is an adjusted proposed Consent Order for Omega Protein based on our discussions on November 29, 2000. Please review the draft and provide me with any comments by December 22, 2000. Also enclosed is a copy of Chapter 4 from the Enforcement Manual.

If you have any questions about the Order, please contact me at (804) 527-5093.

Sincerely

Frank E. Lupini
Enforcement Specialist, Sr.

enclosure
cc: Omega Protein File VA0003867, w/o enclosure
Denise Mosca, KSO w/ enclosure

DRAFT
STATE WATER CONTROL BOARD ENFORCEMENT ACTION
SPECIAL ORDER BY CONSENT
ISSUED TO
OMEGA PROTEIN
VPDES VA0003867

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code §§ 10.1-1185 and 62.1-44.15(8a) and (8d), between the State Water Control Board and Omega Protein, for the purpose of resolving certain violations of environmental law and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Va. Code" means the Code of Virginia (1950), as amended.

2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.

4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Special Order.

6. "Omega Protein" means Omega Protein Incorporated, certified to do business in Virginia and its affiliates, partners, subsidiaries, and parents.

7. "Facility" means the Omega Protein Sewage Treatment Plant located in Reedville, Virginia.

8. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.

9. "Permit" means VPDES permit No. VA0003867, which became effective December 17, 1997 and expires December 17, 2002.

10. "O&M" means operations and maintenance.

SECTION C: Findings of Fact and Conclusions of Law

1. Omega Protein owns and operates a wastewater treatment facility in Northumberland County, Virginia. This facility is the subject of VPDES permit VA0003867, which allows Omega Protein to discharge treated wastewater into Cockrell's Creek and the Chesapeake Bay in strict compliance with terms, limitations and requirements outlined in the permit.

2. On April 28, 1999, DEQ executed a Consent Order with Omega for failing to report an unpermitted discharge. Omega paid a $7,500 civil penalty and the Order was closed in March 2000. Since the Order has closed, DEQ has noted numerous violations of the State Water Control Law.

3. On April 26, 2000, DEQ issued NOV No. 00-03-PRO-001 to Omega citing them for an unpermitted discharge created by sandblasting a vessel in the creek without the proper BMPs in place. In addition, Omega was cited for failure to meet the reporting requirements in its permit by 1) not reporting an unusual discharge which occurred after an equipment failure on July 7, 1999, 2) late submittals of BMP reporting, 3) failure to submit quarterly progress reports, and 4) improper toxicity testing.

4. On August 1, 2000, DEQ issued NOV No. W2000-05-K-001 to Omega citing them for late submittal of a quarterly progress report and total suspended solids violations in May 2000.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of the authority granted it in Va. Code § 62.1-44.15(8a) and (8d), orders Omega Protein, and Omega Protein agrees, to perform the actions described in Appendix A of this Order.

During the time that this Order is in effect, Omega Protein and DEQ agree that, until the VPDES permit is modified, compliance for TSS, BOD, and O&G will be determined at the sampling point for outfall 001. Omega further agrees to continue to monitor and report for TSS, BOD, and O&G at outfall 006. Results from the analysis at outfall 001 shall be included with the DMR submittal as a separate attachment.

In addition, the Board orders Omega Protein, and Omega Protein agrees, to pay a civil charge of $18,600 within 30 days of the effective date of the Order in settlement of the violations cited in this Order. Payment shall be made by check payable to the "Treasurer of Virginia", delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 10150
Richmond, Virginia 23240

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of Omega Protein, for good cause shown by Omega Protein, or on its own motion after notice and opportunity to be heard.

2. This Order only addresses and resolves those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including, but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility as may be authorized by law; and/or (3) taking subsequent action to enforce the terms of this order. Nothing herein shall affect appropriate enforcement actions by other federal, state, or local regulatory authority, whether or not arising out of the same or similar facts.

3. For purposes of this Order and subsequent actions with respect to this Order, Omega Protein admits the jurisdictional allegations, factual findings, and conclusions of law contained herein.

4. Omega Protein consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Omega Protein declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 9-6.14:1 *et seq.*, and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.

6. Failure by Omega Protein to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Omega Protein shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Omega Protein shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Omega Protein shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

   a. the reasons for the delay or noncompliance;

   b. the projected duration of any such delay or noncompliance;

   c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

   d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

   Failure to so notify the Regional Director within 24 hours of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Omega Protein. Notwithstanding the foregoing, Omega Protein agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until the Director or Board terminates the Order in his or its sole discretion upon 30 days written notice to Omega Protein. Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Omega Protein from its obligation to comply with any statute,

regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. By its signature below, Omega Protein voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____day of _____, 2001.

_____
Dennis H. Treacy, Director
Department of Environmental Quality

Omega Protein voluntarily agrees to the issuance of this Order.

By: _____

Date: _____

Commonwealth of Virginia

City/County of _____

The foregoing document was signed and acknowledged before me this _____ day of _____, 2000, by _____, who is
(name)

_____ of Omega Protein, on behalf of the Corporation.
(title)

_____
Notary Public

My commission expires: _____.

APPENDIX A

Omega Protein shall:

1. **Immediately upon issuance of this Order**, develop and submit to PRO standard operating procedures to ensure that reporting violations do not reoccur at Omega Protein.

2. **Within thirty days of the issuance of this Order**, submit to the PRO a diagnostic evaluation (DE) of the Omega Protein wastewater treatment system. A state registered professional engineer must conduct the DE. The DE shall be used to determine if the facility, as built, can meet the NPDES permit limits at design flow. The State registered professional engineer shall submit a stamped letter to the Department certifying that the facility can or cannot meet permit limits at design flow as built.

3. If the DE indicates that construction of an upgrade is required for the facility to meet permit limits, then **sixty days from the issuance of the Order,** submit to the PRO a preliminary engineering report and an implementation schedule for the upgrade construction. The schedule, once approved by the PRO, shall become an enforceable part of this Order.

CHAPTER FOUR
CIVIL CHARGE CALCULATIONS

This Chapter sets forth how the Department generally expects to exercise its enforcement discretion in determining an appropriate civil charge it will be willing to settle a case under the Air, Waste, and Water Laws. Civil charges are used for deterrence purposes and to remove the economic benefit of non-compliance. Before calculating a civil charge, the staff must first determine whether the alleged violation warrants a civil charge.

The civil charge calculations set forth here are also used to calculate penalties for Code § 10.1-1186 Special Order Proceedings for all three media. The development of the penalty amount to plead in a judicial complaint is developed independently of these procedures and thus is not addressed here.

I. THE AIR PROGRAM

The Virginia Air Pollution Control Law ("Air Law") at § 10.1-1316(C) provides for the inclusion of negotiated civil charges in Consent Orders with a source for violations of the Air Law and Regulations. The maximum limit for a civil charge is $25,000 for each violation, with each day being a separate violation.

The following procedures address the calculation of civil charges under the Air Law and Regulations. To establish a civil charge, the enforcement staff must first determine if the violation is a "Serious," "Moderate," or "Marginal" violation. This classification is then used in the Civil Charge Calculation Worksheet ("Worksheet") to determine the civil charge amount.

A. SERIOUS, MODERATE, AND MARGINAL VIOLATIONS

The terms "Serious," "Moderate," and "Marginal" as they appear on the Worksheet are intended to reflect the relative severity of the noncompliance that led to the civil charge. The severity of the violation is reflected in the amount of the standard civil charges provided on the Worksheet. The sum of these standard civil charges and those civil charges calculated specifically for the noncompliance situation is the civil charge assessed to the source. The classification determines the civil charge assessed for each category of violations *with the exception of the economic benefit calculation.*

The following sections identify standardized situations for each of the violation severity levels. Ultimately, it is the professional judgement of the regional personnel that will be the determining factor on what level of severity is assigned to each violation. The table is intended to provide examples of minimum violations for each category. Marginal and moderate violations can be upgraded based on site-specific information gathered by regional personnel. Adherence to

these procedures ensures consistency among the regions and DEQ adherence to EPA requirements.

1. Serious Violations

The following are considered serious violations:

- No PSD permit
- No permit for Major Sources
- NESHAP standards violations
- Substantive NSPS standards violations at Major Point Sources
- A Major Source violating Virginia Air Regulations
- Refusal to stack test and/or submit stack test report
- Violations which cause actual documented NAAQS violations
- SAAC violations
- Throughput violations triggering PSD review
- Deliberately bypassing control equipment for Major Point Source
- Not maintaining control equipment for Major Point Source in a manner consistent with good air pollution control practice
- Failure to install, maintain, and operate federally required CEM equipment

2. Moderate Violations

The following are considered moderate violations:

- NSPS standards violations at SM Point Sources
- An SM/B Source violating Virginia Air Regulations
- Deliberately bypassing control equipment for SM Point Source
- Not maintaining control equipment for SM Point Source in a manner consistent with good air pollution control practice

3. Marginal Violations

The following are considered marginal violations:

- No permit for a B Point Source
- NSPS standards violations at B Point Sources

- Most reporting violations (including NESHAP reporting requirements)
- Throughput violation not triggering PSD review
- Deliberately bypassing control equipment for B Point Source
- Not maintaining B Point Source control equipment in a manner consistent with good air pollution control practice

B. CIVIL CHARGE CALCULATION

In providing for civil charges, the Code states that the size of the owner's business, the severity of the economic impact of the civil charge on the business, and the seriousness of the violation shall be considered. To address these requirements, the enforcement staff should incorporate the following in the civil charges: the economic benefit derived through noncompliance and an amount reflective of the severity of the violation. When developing a civil charge, due consideration should be given to the responses and actions of the source.

Civil charges are calculated using the "Civil Charge Calculation Worksheet" ("Worksheet"), which is found at the end of this section on the Air Program. The categories of violations are the numbered items that make up the Worksheet, which are further described below. When using the Worksheet to address multiple violations discovered during the same compliance determinant activity, charges are to be calculated for each violation, independently, with the exception of items 8 and 11, and then combined to provide the total proposed civil charge.

1. Permit or Regulatory Violations

This category is general in nature and is intended to establish a minimum charge for all violations of regulatory or permit requirements. This charge is in addition to any which may be applicable under item 4 of the Worksheet for the same violation. If the source is being assessed for violation of a PSD, NESHAP, or NSPS requirement, the applicable charges in item 1 are to be multiplied by 2.

To address this issue, a series of questions are provided on the Worksheet as follows:

a. **Is a permit required?** This civil charge is applicable to situations of construction/modification/reconstruction without a new source permit and to the failure to obtain an operating permit

b. **Is the source operating without the required permit?** This civil charge is applicable to situations of construction/modification/reconstruction without a new source permit where the source has begun operation of the source or point source affected by the permit applicability determination. This civil charge is assessed in addition to item 1.a.

c. **Is a permit/regulation violated?** This civil charge applies to violations of permit conditions and requirements of the Air Regulations.

2. **Consent Order Violations**

a. **Is a Consent Order condition violated?** This civil charge is assessed if the source has violated requirements of a Consent Order and is in addition to those civil charges that may be applicable in items 1, 3, or 4 of the Worksheet.

3. **Pollution Control Equipment Violations**

This civil charge is assessed for the failure to install or properly operate and maintain air pollution control equipment. The pertinent questions on the Worksheet are as follows:

a. **Is equipment installed?** In other words, are appropriate air pollution controls present? This civil charge is applicable to, but not limited to, situations of:

- Failure to install air pollution control equipment specifically required by permit or regulation, or removal of such equipment;
- Failure to install equipment necessary to meet BACT or LAER (in situations of construction/modification/reconstruction without a permit) as may be determined through the permit review process; or
- Failure to install control equipment capable of meeting emissions limits established by permit or regulations.

b. **If installed, is equipment operating properly?** In other words, are the air pollution controls operating properly? This civil charge applies to situations where the source neglects to operate the equipment or is not operating or maintaining the equipment adequately.

Note that assessment of item 3 civil charges is not limited to traditional end-of-the-pipe equipment but is also applicable to production equipment, particularly if this equipment has been identified as BACT/RACT/LAER. Also, careful consideration must be given to the assessment of this civil charge when assessed in combination with item 4 of the Worksheet. A situation could exist where the pollution controls are maintained and operated properly but an emission violation still occurs. It is not appropriate in this situation to assess a civil charge for improperly operated pollution control equipment, just the emissions violation.

4. **Emission/Monitoring Violations**

Located on the Worksheet are four questions related to emission/monitoring violations. The amount of the civil charge associated with the individual questions is based on the percentage over the emission limit for the emission violations and the type of violation for the

CEM violations. Table 1 establishes the civil charge based on the percentage over emission limit and the point source classification.

a. **Are there visible emission violations?** See Table 1.

b. **Are there emission standard violations?** See Table 1.

c. **Are there CEM violations?** Situations assessed under this category include other types of compliance assurance tracking/reporting, *i.e.* fuel certifications. CEM violations include:

- ***Continual Late Submittal of EER or Other Periodic Compliance Assurance Report.*** Add $500 to base amount on Worksheet. Ten days will be allotted to the source to submit the EER after notice of the violation. Another $200 per day will be charged for every day after the ten-day grace period. The civil charge under this category is calculated on an emissions unit basis, *i.e*, if the source must submit a quarterly report for three emissions units and two were late, the civil charge would be $1,000 with $400 added each day after the 10-day grace period.

  This civil charge is assessed commencing with the second consecutive late submittal of a required periodic compliance assurance report (*i.e.*, excess emissions report, monitoring system performance report, Data Assessment Report, fuel certification report, emissions report, etc). Reporting requirements include those found in §§ 9 VAC 5-40-50(C) and 9 VAC 5-50-50(C) of the Regulations, Subpart A (and other applicable Subparts) of NSPS, Appendix F of NSPS, consent orders, or permits.

- ***Failure to Perform Required Audits.*** Section 9 VAC 5-50-410 of the Regulations incorporates by reference those subparts of 40 CFR Part 60 that incorporate audit requirements. In addition, § 9 VAC 5-40-1780(D) of the Regulations requires audits be performed by those facilities subject to Rule 4-13. Add $1,500 to base amount in Worksheet. Two weeks will be allotted to the source to perform the audit. An additional $200 per day will be charged for every day past the two week grace period. The civil charge under this category is calculated on a monthly basis, *i.e.*, if the source must conduct a quarterly audit on three individual monitoring systems (excluding redundant back-up systems) and two were late, the civil charge would be $3,000 with $400 added each day after the ten-day grace period.

- ***Excessive Downtime on CEM.*** Section 9 VAC 5-50-410 of the Regulations incorporates by reference those subparts of 40 CFR Part 60 which include monitor availability requirements. In addition, § 9 VAC 5-40-1780(D) of the Regulations establishes monitor availability requirements for those facilities subject to Rule 4-13. Add $2,000 to base amount on Worksheet for each monitoring system which does not meet the required monitor availability.

d. **Are there toxic pollutant violations?** This civil charge is assessed to emissions and monitoring violations involving a toxic pollutant. A toxic pollutant is defined in the Regulations as "any air pollutant for which no ambient air quality standard has been established." The staff is reminded that, for "existing sources," the Regulations establish significant ambient air concentration "guidelines" for toxic pollutants. If the existing source is found to be in excess of a guideline, the Regulations provide specific alternatives to address the exceedence. Therefore, an existing source is not considered to be a toxic pollutant violator until or unless DEQ has notified it of the exceedence and the source has failed to respond as specified in § 9 VAC 5-40-220.

Where a violation involves exceedence of a permit limit for a toxic pollutant, a charge should be assessed for both the emission violation and the toxic pollutant.

5. Sensitivity of the Environment

This category focuses on the geographic location of the violation. Civil charges associated with this category are dependent on the nonattainment/attainment status or the PSD area classification and the classification of the violation. The sensitivity of the environment charge applies only to emission standards violations or to work practice or technology standards that serve as emission standards. When a violation occurs in a nonattainment area, the non-attainment charge applies only for violations involving pollutants or pollutant precursors for which the area is designated nonattainment. The description of the nonattainment areas and the PSD classifications are provided in the Regulations.

6. Preliminary Civil Charge Subtotal

Sum all assessed charges in items 1 through 5.

7. Length of Time Factor

The longer a violation continues uncorrected, the greater the potential for harm to air quality. The Worksheet addresses this consideration in the category labeled "Length of Time Factor." The charge is developed by multiplying the number of days the violation occurred by 0.274. The result of this calculation is the Percent (%) Increase Factor. This factor must be divided by 100 to obtain the decimal expression, which is then multiplied with the preliminary subtotal to obtain the additional civil charge. The time span (expressed in days) used to calculate the charge begins on the day, based on documented evidence, the violation began for emission violations and the day of discovery of the violation for administrative violations. The time span ends on the date the source agrees in principle to a set of corrective actions designed to achieve compliance with the regulatory requirement for which the charge(s) was (were) assessed. For

situations of construction without a permit, the time span ends when the source submits a *complete* permit application for the affected process or equipment.

The following is an example of how to calculate a "length of time" civil charge:

- ***Calculate the length of time in days that the noncompliance existed.*** For example, 200 days elapsed between the beginning day of the noncompliance and the date the source agreed in principle to a set of corrective actions necessary to return to a state of compliance.
- ***Multiply the number of days by 0.274.*** Take 200 and multiply it by 0.274 to get 54.8. You can round this up to whole numbers to get 55.
- ***Divide this number by 100. This yields the Length of Time Factor.*** 55 divided by 100 yields 0.55.
- ***Multiply the base amount of the civil charge calculated on the Worksheet by the Length of Time Factor.*** Assume for this example that the base amount is $1,000. 1,000 times 0.55 yields $550.
- ***Enter the calculated amount*** into the entry block in item 7 on the Worksheet.

8. Compliance History

The staff considers prior enforcement activities of the Air Law and Regulations in adjusting the civil charge based on the source's compliance history. Prior enforcement activities include any act or omission resulting in an enforcement response, as described in Chapter Two of this Manual. Warning Letters and NOVs that are not pursued would not be considered. This factor may be used to increase – but not decrease – a charge. Evidence of an excellent compliance history cannot be used as justification for reducing a civil charge on a current and unrelated violation. See Table 2.

9. Extended Compliance

"Extended compliance" means extending the date by which the source is required to comply with any compliance date(s). The extended compliance civil charge is intended to apply to situations where the proposed schedule is based upon limitations such as a reasonable construction or equipment delivery schedule. Compliance delays proposed for monetary considerations or for the sake of convenience (*i.e.*, to coordinate equipment installation with the routine annual maintenance shutdown) should only be accepted if the source demonstrates that the associated financial burden is beyond their "ability to pay."

If the source is proposing a schedule that will extend the compliance schedule, a calculated charge for such an extension is appropriate. The consent order shall include a schedule detailing important interim dates and the final date by which compliance will be achieved.

Federal Regulations list specific procedures for processing *Delayed Compliance Orders*. EPA maintains the authority to disapprove any DEQ approved Delayed Compliance Orders subject to the public participation guidelines described in 40 CFR §65.04. All proposed Delayed Compliance Orders shall be transmitted to the Central Office for review prior to entering into a consent order with that source.

If the source is proposing a schedule that will extend a compliance date, there will be a commensurate impact on air quality. A calculated charge for such an extension is appropriate; consequently, when a consent order includes a provision for such a schedule, the amount calculated for items 1-7 should be increased according to length of the extended compliance. Calculate the length of the extension, in months, and multiply this number by 2.78. This gives the percent increase due to the extended compliance. For compliance schedules of less than one month (30 days), calculation of an extended compliance charge is not necessary. Partial months (as determined on 30-day increments) will be assessed as a full month when calculating the extended compliance charge.

The following is an example of how to calculate an "extended compliance" civil charge:

- ***Calculate the length of time, in months (on a 30-day basis), compliance will be extended by execution of the order.*** For example, the schedule described in the consent order indicates a six-month (180 day) delay before compliance will be achieved.
- ***Multiply the number of months by 2.78.*** Take 6 and multiply it by 2.78 to get 16.68. You can round this up to whole numbers to get 17.
- ***Divide this number by 100. This yields the Extended Compliance Factor.*** 17 divided by 100 yields 0.17.
- ***Multiply the base amount of the civil charge calculated on the Worksheet by the Extended Compliance Factor.*** Continuing with this example, the base amount is $1,000. $1,000 times 0.17 yields $170.
- ***Write the calculated charge into the entry block in item 9 on the Worksheet.***

10. Economic Benefit of Noncompliance

Section 113(e) of the federal Clean Air Act states, in part, that in assessing civil penalties the "economic benefit of noncompliance" shall be taken into consideration. The reason for applying this factor in a civil charge is to ensure the charge acts as a deterrent to noncompliance. By developing a civil charge assessment structure that incorporates this deterrent effect, an enforcement action removes any economic gain that a source accrues by avoiding or delaying costs necessary to achieve compliance.

The existence of a significant economic benefit gained from noncompliance must be evaluated on a case-by-case basis. The inspector must use professional judgement when making the preliminary determination that an economic benefit exists. When there exists an indication of

an economic benefit based on delayed or avoided costs, the staff shall estimate the value of the economic benefit and include this amount in the proposed civil charge.

a. Delayed Versus Avoided Costs

A necessary first step when making a preliminary determination of an economic benefit is understanding the costs avoided or delayed through noncompliance. A delayed cost is an expenditure that, through current noncompliance, can be put off to sometime in the future. An avoided cost is an expenditure that will not be made due to noncompliance.

- Examples of delayed costs include, but are not limited to: failure to install equipment needed to meet emission control standards; failure to effect process changes needed to reduce pollution; failure to test where the test still must be performed; and failure to install required monitoring equipment.
- Examples of avoided costs include, but are not limited to: disconnecting or failing to properly operate and maintain existing pollution control equipment; failure to employ a sufficient number of staff; failure to adequately train staff; failure to establish or follow precautionary methods required by regulations or permits; removal of pollution equipment resulting in process, operational or maintenance savings; disconnecting or failing to properly operate and maintain required monitoring equipment; and operation and maintenance of equipment that the violator failed to install.

b. Adjustments to the Calculated Economic Benefit

The inspector may have insight into conditions that affect the amount of the calculated economic benefit. The regional staff should describe:

- **Conditions that indicate economic benefit is insignificant.** The significance of an economic benefit must be determined on a case-by-case basis. The relative insignificance of the economic benefit depends on the impact it will have on the violation and the size of civil charges exclusive of the economic benefit calculation.
- **Compelling public concern.** Compelling public concern as a basis for mitigating the economic benefit amount may be significant when the amount of the economic benefit calculated may result in an extreme financial burden and there is important public interest in retaining the source. Public concern may be a factor where the violators are public entities.
- **Existing administrative action or order.** Where a source is in the process of settling a previous civil charge it may be appropriate to consider adjustments to the economic benefit calculation.

11. Charge Adjustment Calculation

In order to promote equity in the process of assessing a civil charge, the process for developing a civil charge must be flexible enough to account for factors that are unique to each source. The incorporation of case-by-case mitigating factors, however, must be done in a manner that does not sacrifice consistency. This is accomplished by establishing "adjustment factors" that provide a basis for distinguishing among individual enforcement actions. For the purposes of civil charge adjustment, these factors are: degree of willfulness or negligence, degree of cooperation, and environmental damage.

The calculated charge for the Worksheet *excluding the economic benefit calculation* can be reduced by up to 30% for cooperation and a good faith effort to comply with regulatory requirements or permit conditions. These good faith efforts could come in the form of prompt reporting of noncompliance, prompt correction of environmental problems, and cooperation during pre-filing investigation. The degree of cooperation is the only basis for reducing a civil charge. The degree of willfulness or negligence and environmental damage are only applicable in this context as reasons for increasing the civil charge.

- **Civil Charge Disclosure** - It is the DEQ's approach to be totally open with the source and the public regarding the worksheet and the basis for the civil charge.
- **Additional Civil Charge Reduction** - The total civil charge may be reduced by more than 30% if extraordinary circumstances exist. Additional reductions must be evaluated by OEC for consistency and approved by the Regional Compliance and Enforcement Manager.

The Worksheet has a category entitled "Charge Adjustment Calculation," which is used to calculate the adjustment to be applied to the total charge. This category should contain the amount of any charge reduction and the charge adjustment factor. The civil charge adjustment factor shall be applied to the total charge *after the economic benefit amount has been subtracted.* The final Charge Adjustment is then subtracted from the total calculated civil charge to obtain the final assessed civil charge.

C. ABILITY TO PAY A CIVIL CHARGE

The overriding mitigating factor in adjusting civil charges and economic benefit is the source's ability to pay. DEQ must consider reducing the amount assessed on a violation when that amount is beyond the violator's means.

Table 1.

OPACITY AND EMISSION LIMIT VIOLATIONS

MONETARY CIVIL CHARGE MATRIX

% over allowed opacity limitation	SOURCE CLASSIFICATION		
	A	SM	B
10	$200	$100	$50
20	300	150	100
30	400	250	150
40	500	350	200
50	600	450	250
60	700	550	300
70	800	650	350
80	900	750	400
90	1,000	850	450
100	1,100	950	500
200	2,000	1,500	1,000
300	5,000	3,000	1,500
400	10,000	6,000	2,000

OPACITY VIOLATION EXAMPLE:

An SM source is allowed 5% opacity for a baghouse controlling a point source. Method 9 shows 40% opacity. Calculate the assessment for the opacity violation.

1. **Subtract the allowed limitation (5%) from the results from Method 9 (40%) to obtain the % OVER.** In this case, the resultant is 35%.
2. **Locate the % OVER in Table 1. above.** The table reports percentages in steps of 10%. Read 30% ($250) and 40% ($350) and record these same numbers.

$$\frac{35-30}{40-30} x(350-250) = \$\ 300\ Civil\ Charge$$

3. **Interpolate to determine the charge for the opacity violation.**

Table 2.

COMPLIANCE HISTORY (previous 36 months)

Number of Violations	Charge Factor
Second Violation	.50
Third Violation	1.00
Over Third Violation	(N–3)+1.00

TO CALCULATE A COMPLIANCE HISTORY CHARGE

1. ***Review the sources compliance history to determine if any additional violations were noted during the previous 36 months.*** For example, the source had a previous NOV issued 14 months prior to the currently pending enforcement action (do not include additional violations which were discovered as part of the same inspection).
2. ***Look up on the above table and determine the appropriate factor to adjust the civil charge.*** The current enforcement action represents the second violation in 36 months so the Charge Factor is 0.50 (or 50%).
3. ***Multiply the base amount of the civil charge calculated on the Worksheet by the Charge Factor.*** From the example above the base charge is $1,000. Multiplying $1,000 by 0.5 yields $500.
4. ***Write the calculated amount of the civil charge into the entry block in item "8. Compliance History" on the Civil Charge Calculation Worksheet.***

Civil Charge Calculation Worksheet Revised 12/98			Violations		
			Serious	Moderate	Marginal
1. Permit Violation - Multiply by 2 if PSD/NESHAPs/or NSPS					
a. Is a permit required? (if No, go to 1.c below)	Yes	No	$6,000	$2,000	$1,000
b. Is the source operating without the required permit?	Yes	No	$4,000	$2,000	$1,000
c. Is a permit/regulation violated? (excluding 4 below)	Yes	No	$2,000	$1,000	$600
[illegible]					
a. Is a Consent Order condition violated?	Yes	No	$4,000	$2,000	$1,000
[illegible]					
a. Is equipment installed? (If no, assess charge, go to 4)	Yes	No	$10,000	$6,000	$2,000
b. If installed, is equipment operating properly?	Yes	No	$10,000	$6,000	$2,000
[illegible]					
a. Visible Emissions	Yes	No	See Table 1		
b. Emission Standards or Limits	Yes	No	See Table 1		
c. CEM Violations	Yes	No	See Table 2		
d. Toxic Pollutant	Yes	No	$2,000	$1,000	$600

a. Nonattainment area		$4,000	$2,000	$1,000
b. Class I PSD area		$2,000	$1,000	$600
c. Class II and III PSD area		$1,000	$400	$200
		See Table 3		
		See Table 4		
		See Table 5		
		BEN Model		
		Factor =		

II. THE WASTE PROGRAM

DEQ negotiates with parties for the payment of civil charges for past violations in an order issued by the Waste Management Board pursuant to the Waste Management Act, Va. Code § 10.1-1455. The maximum limit for a civil charge is $25,000 for each violation, with each day being a separate violation.

A. CONSENT ORDERS WITHOUT CIVIL CHARGES

As an initial matter, the enforcement staff determines whether the alleged violation is of a nature to warrant a civil charge. The following basic criteria should be met in all such cases without civil charges: there has been no or minimal environmental impact, the facility is not a chronic facility, and the facility is making a good-faith effort to comply. The emphasis in all cases, but particularly in cases without civil charges, should be on prompt and appropriate injunctive relief. No civil charge or economic benefit need be computed for cases qualifying under this section.

B. CONSENT ORDERS WITH CIVIL CHARGES

Civil charges are calculated for all waste programs using the Waste Civil Charge Worksheet, which is found at the end of the Waste Program section. A separate Worksheet is completed for each alleged violation. Multiple violations that arise out of a single act or omission may be consolidated into a single violation for purposes of calculating civil charges. In no case may the total civil charge for a single violation exceed the statutory maximum of $25,000 per day of violation.

In calculating the appropriate civil charge, enforcement staff addresses the following seven components which are discussed in greater detail below.

- Gravity-based component, which is calculated before any adjustments are made
- "Multi-day" component, as appropriate, to account for continuing violations
- The facility's degree of culpability
- The facility's compliance history
- Economic benefit of noncompliance, if appropriate
- An adjustment component, to include cooperativeness/quick settlement, promptness of injunctive relief/good faith effort to comply, and strategic considerations
- Ability to pay

C. GRAVITY-BASED COMPONENT

The gravity-based component is assessed based on the violation's "potential for harm" and the extent to which the violation deviates from the regulatory requirement, which is facility's status as SNC or SV.

1. Potential for Harm

There are three categories of "potential for harm" into which a violation may be placed which are "Serious," "Moderate," and "Marginal." These categories are used throughout the Worksheet for each component.

- **SERIOUS:** (1) The violation has caused actual exposure or presents a *substantial risk* of exposure of humans or other environmental receptors to waste or constituents; and/or (2) the actions have or may have a *substantial adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program.
- **MODERATE:** (1) The violation presents or may present a *significant risk* of exposure of humans or other environmental receptors to waste or constituents; and/or (2) the actions have or may have a *significant adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program.
- **MARGINAL:** (1) The violation presents or may present a *relatively low risk* of exposure of humans or other environmental receptors to waste or constituents; and/or (2) the actions have or may have a *small adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program.

A facility is placed into one of these categories based on: (1) the extent of risk of exposure of humans or other environmental receptors, and/or (2) the effect on the regulatory program.

a. **Risk of Exposure.** Risk of exposure involves both the probability of exposure and potential consequences that may result from exposure.

- *Probability of Exposure.* Where a violation involves the actual management of waste, a civil charge should reflect the probability that the violation could have or has resulted in a release of waste or constituents or could have or has resulted in a condition that creates a threat of exposure to waste or waste constituents. The likelihood of a release is determined based on whether the integrity and/or stability of the waste management unit is likely to have been compromised. Some factors to consider in making this determination are: (1) evidence of release (*e.g.*, existing soil or groundwater contamination), (2) evidence of waste mismanagement (*e.g.*, rusting drums), and (3) adequacy of provisions for detecting and preventing a release (*e.g.*, monitoring equipment and inspection

procedures). A larger civil charge is presumptively appropriate where the violation significantly impairs the ability of the waste management system to prevent and/or detect releases of waste and constituents.

- *Potential Consequences*. In calculating risk of exposure, enforcement personnel weigh the harm that would result if the waste or constituents were in fact released to the environment. Some factors to consider in making this determination are: (1) quantity and toxicity of wastes (potentially) released; (2) likelihood or fact of transport by way of environmental media (*e.g.*, air and groundwater); and (3) existence, size, and proximity of receptor populations (*e.g.*, local residents, fish and wildlife, including threatened or endangered species) and sensitive environmental media (*e.g.*, surface waters and aquifers).

In considering the risk of exposure, the emphasis is placed on the potential for harm posed by a violation rather than on whether harm actually occurred. The presence or absence of direct harm in a noncompliance situation is something over which the facility may have no control. Such facilities should not be rewarded with lower civil charges simply because the violations happened not to have resulted in actual harm.

b. **Effect on the regulatory program.** There are some requirements of the Waste Program that, if violated, may not likely give rise directly or immediately to a significant risk of contamination. Nonetheless, all regulatory requirements are fundamental to the continued integrity of the regulatory program. Violations of such requirements may have serious implications and merit a substantial civil charge where the violation undermines the statutory or regulatory purposes or procedures for implementing the regulatory program. Examples of regulatory harm include, but are not limited to:

- Failure to notify as a generator or transporter of hazardous waste and/or owner of a hazardous waste facility
- Failure to comply with financial assurance requirements
- Failure to submit a timely/adequate solid waste Part B application
- Failure to respond to a formal information request
- Operating without a permit or interim status
- Failure to prepare or maintain a hazardous waste manifest
- Failure to install or conduct adequate groundwater monitoring.
- Certain failures to comply with record keeping that undermine DEQ's ability to determine compliance

2. Extent of Deviation: SNC/SV Status

The extent to which the violation deviates from the regulatory requirement is the second factor considered in assessing the gravity-based component. For hazardous waste, the extent of deviation is based on the status of a facility as SNC or SV under the 1996 EPA Enforcement Response Policy. This determination will normally already have been made as part of the enforcement referral process.

For purposes of evaluating non-hazardous solid waste civil charges, violations that result in enforcement referral are SNC. Other violations that, by themselves, do not cause the referral are SV.

D. MULTI-DAY COMPONENT

The multi-day component is assessed for days 2 through 180 of continuing violations. This component is calculated by multiplying the number of days of continuing violations ("n") by the factor in the appropriate matrix cell. Use of a multi-day component beyond 180 days is discretionary. The "potential for harm" determination already made for calculation of the gravity-based component is used to select the appropriate cell on the Worksheet for this component. Use of a multi-day component is presumed for days 2 through 180 of all violations that caused a facility to be designated as a SNC. The multi-day component may be waived where good cause for waiver is documented in the ERP.

E. DEGREE OF CULPABILITY

Under this provision, the civil charge is increased if there is substantial evidence that the alleged violation was caused by the negligence of the facility or by a deliberate act of the facility. The "potential for harm" determination already made for calculation of the gravity-based component is used to select the appropriate cell on the Worksheet for this component.

For purposes of calculating the civil charge on the Worksheet, violations of Consent Orders are presumed to be the result of either a negligent or a deliberate act of the facility.

F. COMPLIANCE HISTORY

This provision increases the civil charge for repeat violations of the same requirement within at least the previous 36 months of the violation. In evaluating this factor, it should be remembered that the owner's history is at issue, not the facility's. Consequently, for example, if a facility with a history of noncompliance is purchased or taken over by a new owner with little or no such history, this factor component may not be assessed.

The "potential for harm" determination already made for calculation of the gravity-based component is also used to select the appropriate cell on the Worksheet for this component.

G. ECONOMIC BENEFIT OF NONCOMPLIANCE

This provision recovers the economic benefit of noncompliance derived from the violation. This factor may be calculated with the EPA computer model BEN. The calculation is made based on the Cumulative Subtotal arrived at on the Worksheet before adjustments, if any, are made.

The intent is to recoup the economic benefit of noncompliance in all cases. There are four general areas, however, where settling for less than the total civil charge amount for less than the economic benefit may be appropriate. The four exceptions are:

- The economic benefit component consists of an insignificant amount (*i.e.*, less than $2500).
- There are compelling public concerns that would not be served by taking a case to trial.
- It is unlikely, based on the facts of the particular case as a whole, that DEQ will be able to recover the economic benefit in litigation.
- The facility has documented an inability to pay the total proposed civil charge.

F. ADJUSTMENT FACTORS

The civil charge Cumulative Subtotal – *excluding the economic benefit of noncompliance calculation* – may be reduced by up to 30% based on several factors where there are clearly documented case-specific facts that support the adjustment. Those factors include cooperativeness/quick settlement, promptness of injunctive response/good faith effort to comply, and strategic considerations. Any decision whether or not to apply any adjustments is within the sole discretion of the appropriate DEQ management. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

1. Cooperativeness/Quick Settlement

An adjustment may be provided where the facility is cooperative in resolving the case in a timely and appropriate manner and it makes a good faith effort to settle the violations quickly.

2. Promptness of Injunctive Response/Good Faith Effort to Comply

Good faith efforts to comply with regulatory requirements or permit conditions could come in the form of prompt reporting of noncompliance or prompt correction of environmental problems. A reduction may be given to facilities that promptly initiate corrective actions in response to violations. Consideration should be given to institutional or legal limitations on corrective actions. For example, a municipality may be unable to institute corrective action

immediately because of funding procedures. Owners who agree to expedited corrective action schedules may qualify for this reduction. Also, the replacement of facility management who might have been unresponsive to violations, unbeknownst to facility owners, may be considered.

In evaluating this reduction factor, it is appropriate to consider the effectiveness and quality of DEQ notification, compliance assistance, and general customer service given to the facility following violations or identification of compliance problems.

3. Strategic Considerations

Strategic considerations include litigation potential, the precedential value of the case, the size of the facility, problems of proof in the case, impacts or threat of impacts (or lack thereof) to human health or the environment, and probability of meaningful recovery of civil charges and/or costs.

H. ABILITY TO PAY

A reduction based on inability to pay may be considered in a case where the facility has demonstrated that a significant economic hardship would result from the full civil charge. The burden to demonstrate inability to pay rests on the facility. The EPA computer models ABEL, INDIPAY, or MUNIPAY may be used to evaluate ability to pay.

If a facility cannot pay the civil charge otherwise called for by this policy or would be prevented from carrying out essential remedial measures by paying the full amount, the following options should be considered in the order presented:

- Installment payment plan with interest
- Delayed payment schedule with interest
- Reduction based on ability to pay modeling

WASTE CIVIL CHARGE WORKSHEET

			Potential For Harm		
Violation No.			Serious	Moderate	Marginal
1. Gravity-based component					
a. Does violation meet SNC criteria?	Y	N	20,000	8,000	1,500
b. Does violation meet SV criteria?	Y	N	11,000	3,000	100
c. Gravity-based subtotal					
2. Multi-day component (n = number of days of continuing violation)					
a. Does the multi-day component apply? If no, go to #3.	Y	N			
b. Does violation meet SNC criteria?	Y	N	1,000 x n	400 x n	100 x n
c. Does violation meet SV criteria?	Y	N	550 x n	150 x n	100 x n
d. Multi-day subtotal					
3. Degree of culpability					
a. Is there substantial evidence of Willfulness or negligence?	Y	N	5,000	3,000	1,500
b. Culpability subtotal					
4. Compliance history					
a. For an SNC, has this violation occurred before within the past 36 months?	Y	N	5,000	3,000	1,500
b. For an SV, has this violation occurred Before within the past 36 months?	Y	N	4,000	2,000	400
c. Compliance history subtotal					
5. Cumulative Subtotal (lines 1c+2d+3b+4c)					
6. Economic benefit of noncompliance					
TOTAL					

III. THE WATER PROGRAM

The State Water Control Law ("Water Law") at Code § 62.1-44.32 provides for the inclusion of negotiated civil charges in Consent Orders with a facility for violations of the Water Law and Regulations. The maximum limit for a civil charge is $25,000 for each violation, with each day being a separate violation.

The procedures in Part B of this section address the calculation of civil charges under the Water Law and Regulations for settlement purposes in VPDES, VWPP, VPA, GWPP, AST, and UST cases. Part C of this section addresses the calculation of civil charges for confined animal feeding operations ("CAFOs"). Under Code § 62.1-44.17:1(J), permittees in violation of CAFO general permits are subject to a maximum of $2,500. Part D of this section addresses calculation of civil charges for oil spills, which have a unique civil charge scheme under § 62.1-44.34:20 of up to $100 per gallon of petroleum released to the environment.

A. CONSENT ORDERS WITHOUT CIVIL CHARGES

Consent Orders can be executed without civil charges when in DEQ's judgment it is in the best interest of public health or the environment, or both. The following basic criteria should be met in all cases without civil charges: there has been no or minimal environmental impact, the facility is not a chronic facility, and the facility is making a good-faith effort to comply. The emphasis in all cases, but particularly in cases without civil charges, should be on prompt and appropriate injunctive relief. No civil charge or economic benefit need be computed for cases qualifying under this section. Assuming the basic criteria are met, the following types of cases may qualify. This list is illustrative and not intended to be exhaustive.

- Municipal VPDES (major or minor) upgrade or expansion or collection system correction delayed due to the inability to secure funding.
- Where interim limits are needed pending connection to municipal wastewater treatment system or a larger regional wastewater treatment system.
- Minor VPDES permittees, such as trailer courts operating lagoons or other antiquated systems that will eventually shut down or be connected to a sewer system.
- Violations resulting from unavoidable or unforeseeable events, and also of short duration with little or no environmental impact, but not including violations of reporting requirements.

B. CONSENT ORDERS WITH CIVIL CHARGES

Civil charges are generally appropriate in Consent Orders when one or more of the following criteria are met: failure to respond to technical assistance efforts, violation of enforcement orders without mitigating circumstances, violations that are avoidable, noncompliance that is continuing or likely to recur, knowing violations, or violations resulting in environmental damage.

Before calculating the civil charge, the statutory maximum civil charge ($25,000 per violation per day in most cases) is estimated to determine the maximum liability of the facility. This can be useful information in negotiations, as facilities should be mindful of the liability they might face in a judicial proceeding.

To calculate the appropriate civil charge in an administrative settlement:

- Determine the civil charge per violation, generally on a "per month" of violation basis for effluent limits and failure to report and on a "per event" basis for violations such as unpermitted discharges or failure to implement proper operations and maintenance procedures;
- Estimate the cost of injunctive remedies needed to resolve the case;
- Determine economic benefit; and
- Then use these values to determine the baseline civil charge.

The baseline civil charge may be reduced based on the following factors: size and type of facility, history of recalcitrance, promptness of injunctive response, quick settlement adjustment, litigation considerations, and ability to pay. As noted above, the final recommended civil charge cannot exceed the statutory maximum amount.

1. Charge Per Violation/Gravity Component

When civil charges are warranted, the civil charge is determined using the Water Civil Charge Worksheet, which is found at the end of Section B. Effluent limitation charges and other ongoing violations are added on a monthly basis. "Per event" charges are added on a one-time basis. These charges would generally be capped at $50,000 per month.

The amounts on the Water Civil Charge Worksheet include a gravity component that is measured as "Serious," "Moderate" or "Marginal" and takes environmental impact and the severity of the alleged violation into consideration. Environmental impact considerations evaluate the site-specific occurrence of or likelihood of impacts or damage to human health or the environment. Severity considerations examine whether the violations or pattern of violations at issue are those that are fundamental to the continued integrity of the regulatory program. Violations of such requirements may have serious implications and merit substantial civil charges where the violation undermines the statutory or regulatory purposes or procedures for implementing the regulatory program.

The three categories are defined as follows:

- **SERIOUS**: (1) The violation has impacted or presents an *imminent and substantial risk* of impacting human health and/or the environment such that serious damage has resulted or is likely to result, and/or (2) the actions have or may have a *substantial*

adverse effect on statutory or regulatory purposes or procedures for implementing the regulatory program. Examples include fish kills, effluent violations resulting in loss of beneficial uses, failure to report an unpermitted discharge, or chronic refusal to apply for a permit or perform TMP.

- **MODERATE**: (1) The violation presents or may present *some risk* of impacting the environment, but those impacts would be minimal and correctable in a reasonable period of time, and/or (2) the actions have or may have a *noticeable adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program. Examples include unpermitted discharges resulting in identifiable sedimentation into state waters, failure to observe BMPs in VWPP permits, preventable accidents, or chronic late submission of monitoring reports or permit application materials.
- **MARGINAL**: (1) The violation presents *little or no risk* of environmental impact, and/or (2) the actions have or may have a *little or no adverse effect* on statutory or regulatory purposes or procedures for implementing the regulatory program. Examples include, but are not limited to: an improperly completed DMR, minor exceedances (*i.e.*, less than or equal to 10% of the allowable limit) in land application with no impact to ground or surface water.

2. Cost of Injunctive Remedy

The cost of the injunctive remedy necessary to bring the facility back into compliance should be estimated for later use in the calculation.

3. Economic Benefit

The removal of the economic benefit of noncompliance serves to place the facility in the same position it would have been if compliance had been achieved on time. Both deterrence and fairness require that the civil charge include, as appropriate and practicable, an additional amount to ensure that the facility is economically worse off than if it had obeyed the law.

Facilities that violate the Water Law may have obtained an economic benefit as a result of delayed or completely avoided pollution control expenditures during the period of noncompliance. Commonly delayed or avoided expenditures include, but are not limited to:

- Monitoring and reporting (including costs of the sampling and proper laboratory analysis)
- Capital equipment improvement or repairs, including engineering design, purchase, installation, and replacement
- Operation and maintenance expenses (*e.g.*, labor, power, chemicals) and other annual expenses

- One-time acquisitions (such as equipment or real estate purchases)

EPA's BEN model is a method for calculating economic benefit from delayed and avoided expenditures. Refer to the "BEN User's Manual" for specific information on the operation of BEN. If the economic benefit exceeds $10,000, BEN should be used to calculate benefit. BEN uses thirteen data variables, of which eight contain default values. The five required variables are information about capital and non-capital costs, annual operation and maintenance costs, and the dates for the period of noncompliance. BEN allows a cooperative facility to provide actual financial data that may affect the civil charge calculation. For economic benefit calculations of less than $10,000 or where the facility will not or cannot provide financial data in a timely manner, staff may make estimates based on available resources, including their best professional judgment.

4. Baseline Civil Charge

One of the main purposes of assessing a civil charge is to ensure significant economic benefit is not gained from failure to comply with the law and regulations. Thus, the baseline civil charge takes into consideration the gravity-based component (cost of the violations), the cost of injunctive relief (what the facility will have to pay to correct the problem), and the economic benefit from noncompliance.

The following steps are taken to determine the Baseline Civil Charge, as set forth on the Worksheet:

- The Gravity-based Component is calculated based on the civil charge assessed per violation and any aggravating factors.
- The Cost of Injunctive Relief (what the facility will have to pay to correct the violations) is estimated.
- These two numbers are added together to get the "out-of-the-pocket" cost of the violations, which is called the Violation/Cost Combined Total.
- The Violation/Cost Combined Total is then compared to the Economic Benefit of Noncompliance, which is determined using the BEN model.
    - If the Violation/Cost Combined Total is less than the Economic Benefit figure, the Economic Benefit number is used for further calculation.
    - If the Violation/Cost Combined Total is greater than the Economic Benefit figure, the Violation/Cost Combined Total is used for further calculation.
- Since the facility will be expending funds to correct the violations (*i.e.*, cost of injunctive relief), that amount is subtracted from the last number calculated above. This number is called the Baseline Civil Charge. By subtracting the cost of injunctive relief, the Baseline Civil Charge number recognizes that, by expending these funds to

correct the violations, that portion of the economic benefit gained from not doing so earlier is substantially captured through payment of these expenses.

The total Baseline Civil Charge cannot exceed the total statutory maximum of $25,000 per violation per day of violation.

5. Adjustments

The baseline civil charge may be reduced up to 30% based on several factors, including size and type of facility, history of recalcitrance, promptness of injunctive response, quick settlement adjustment, litigation considerations, and ability to pay. Any decision whether or not to apply any adjustments is within the sole discretion of the appropriate DEQ management and the State Water Control Board, when it is in session. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

a. **Size and type of facility/owner.** Reductions are appropriate for small facilities. Such a reduction, however, may not be appropriate for a small facility owned by a large corporation. Facilities providing a critical community service (*e.g.*, municipal plants, hospitals and schools) are appropriate for this reduction.

b. **History of compliance.** A reduction is appropriate if the owner's history of recalcitrance is limited or nonexistent. In evaluating this factor, it should be remembered that the owner's history is at issue, not the facility's. Consequently, for example, if a facility with a long history of recalcitrance is purchased or taken over by a new owner with little or no history or recalcitrance, a reduction for this factor may be justified.

c. **Cooperativeness/quick settlement.** A reduction may be given to a facility that makes good faith efforts to settle the alleged violations quickly.

d. **Promptness of injunctive response/good faith effort to comply.** Good faith efforts to comply with regulatory requirements or permit conditions could come in the form of prompt reporting of noncompliance or prompt correction of environmental problems. A reduction may be given to facilities that promptly initiate corrective actions in response to violations. Consideration should be given to institutional or legal limitations on corrective actions: for example, a municipality may be unable to institute corrective action immediately because of funding procedures. Owners who agree to expedited corrective action schedules may also qualify for this reduction. Also the replacement of facility management who might have been unresponsive to violations, unbeknownst to facility owners, may be considered.

In evaluating this reduction factor, it is appropriate to consider the effectiveness and quality of DEQ notification, compliance assistance, and general customer service given to the facility following violations or even identification of compliance problems.

e. **Ability to pay.** A reduction based on inability to pay may be considered in a case where the facility has demonstrated that a significant economic hardship would result from the full civil charge. Any facility that qualifies under the ABEL procedure will receive the maximum adjustment for this factor.

f. **Strategic considerations.** Strategic considerations include litigation potential, the precedential value of the case, problems of proof in the case, impacts or threat of impacts (or lack thereof) to human health or the environment, and probability of meaningful recovery of civil penalties and/or costs.

6. Final Recommended Civil Charge

The Baseline Civil Charge minus the adjustments from section five results in the Final Recommended Civil Charge. The ERP must demonstrate the justifications for these calculations and contain approvals from appropriate DEQ management before proceeding to final negotiations with the facility to settle the case. In the event that facts are gleaned during the negotiations that would prompt further adjustment of the Final Recommended Civil Charge, the ERP must be amended accordingly. Clearly documented, case-specific facts may justify adjustment of the Final Recommended Civil Charge for settlement purposes.

WATER CIVIL CHARGE WORKSHEET

1. Gravity-based Component			Serious	Moderate	Marginal	
a. Violations and Frequency ***per MONTH unless noted***			$$ x occurrences	$$ x occurrences	$$ x occurrences	SUBTOTAL
Effluent Limits	Y	N	1K x ____	500 x ____	200 x ____	
Operational Deficiencies	Y	N	1K x ____	500 x ____	200 x ____	
Monitoring/Submissions	Y	N	1K x ____	500 x ____	200 x ____	
Bypasses/ Overflows *per day*	Y	N	500 x ____	300 x ____	100 x ____	
Spills/Unpermitted Discharge/Withdrawal *per event*	Y	N	10K x ____	5K x ____	1K x ____	
Compliance/Construction/Payment Schedules	Y	N	1K x ____	500 x ____	200 x ____	
No Permit/ODCP	Y	N	2K x ____	1K x ____	500 x ____	
Failure to Report *per event, per month*	Y	N	10K x ____	5K x ____	1K x ____	
					Subtotal #1a	
b. Aggravating Factors as Multipliers						
Major Facility?	Y	N	Subtotal #1a x .2			
Consent/Judicial Order Violations?	Y	N	Subtotal #1a x .5			
Deliberate Act?	Y	N	Subtotal #1a x .5			
					Subtotal #1b	
GRAVITY BASED COMPONENT TOTAL (Add Subtotal #1a and Subtotal #1b)					TOTAL #1	
2. Cost of Injunctive Remedy ***estimated***					TOTAL #2	
3. Violation/Cost Combined Total						
Add TOTAL #1 and TOTAL #2					TOTAL #3	
4. Economic Benefit of Noncompliance ***calculated from BEN***					TOTAL #4	

5. Baseline Civil Charge		
If TOTAL #3 (Viol./cost) is GREATER than TOTAL #4 (Econ. ben.), record TOTAL #3 result as SUBTOTAL #5a. If TOTAL #3 (Viol./cost) is LESS than TOTAL #4 (Econ. ben.), record TOTAL #4 as SUBTOTAL #5a	SUBTOTAL #5a	
BASELINE CIVIL CHARGE TOTAL (Subtract TOTAL #2 (cost inj.) from TOTAL #5a, record as TOTAL #5)	TOTAL #5	

6. Adjustments *circle all which apply*					
Size/Type of Facility Owner	History of Compliance	Cooperativeness/ Quick Settlement	Promptness of Injunctive Response/Good Faith Effort to Comply	Ability to Pay	Strategic Considerations

Maximum decrease 30% of Total #5	TOTAL #6	

7. Final Recommended Civil Charge	
TOTAL	

C. CAFO CONSENT ORDERS WITH CIVIL CHARGES

Under Code § 62.1-44.17:1(J), permittees in violation of CAFO general permits are subject to a maximum civil charge of $2500.

Using the CAFO Civil Charge Worksheet, which follows Section C, staff assess appropriate civil charges on a per settlement action basis. Aggravating factors, including threats to human health and safety, environmental damage, consent order or judicial decree violation or any evidence of deliberate acts or omissions are then assessed to determine the Baseline Civil Charge.

Thereafter, an adjustment of up to 30% may be taken based on the following factors: size and type of facility owner; history of compliance; cooperativeness/quick settlement; promptness of injunctive response/good faith effort to comply; ability to pay; and strategic considerations. These adjustment factors are discussed in the previous section. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

The Baseline Civil Charge minus adjustments results in the Final Recommended Civil Charge. In the event that facts are gleaned during the negotiations that would prompt further adjustment of the Final Recommended Civil Charge, the ERP must be amended accordingly. Clearly documented, case-specific facts may justify adjustment of the Final Recommended Civil Charge for settlement purposes. In no event may the final recommended civil charge for CAFO general permit violations exceed $2500. However, onsite violations not addressed under the CAFO section of the Water Law (*e.g.*, such as discharges of pollutants to state waters without a permit) should be assessed separately using the general water civil charge procedures.

CAFO CIVIL CHARGE WORKSHEET

a. Violations *count each violation per INSPECTION unless otherwise noted*	$$$	# of occurrences	$ Subtotal
Failure to monitor soils, waste or groundwater	1,000		$
Failure to maintain records	500		$
Failure to calibrate equipment; on NMP, manufacturers or O&M manuals on site	500		$
Improper documentation of liner, seasonal high water table, siting, design and construction	500		$
Improperly precharged lagoon, insufficient freeboard	1000		$
Improper sludge removal, inadequate vegetative cover, trees or brush on berm	500		$
NMP Violations *per incident*: Maximum waste application exceeded, inadequate crop condition, improper crop rotation, waste applied outside spreading schedule	1000		$
Maximum nutrient loading exceeded, evidence of breeched buffers, runoff or erosion, *per incident*	1000		$
Animal units exceeded	1000		$
NMP not timely revised	1000		$
Other	500		$
	SUBTOTALS		$

b. Aggravating Factors as Multipliers *multiply the Subtotal $$ by 2.5 if any of the following factors apply (circle)*

Threat to Human Health or Safety	Environmental Damage	Consent/Judicial Order Violation	Evidence of Deliberate Act or Omission

	$

Promptness of Injunctive Response/Good Faith Effort to Comply	Size/Type of Facility Owner	History of Compliance	Ability to Pay	Cooperation/ Quick Settlement	Strategic Considerations

	$

D. OIL SPILL CONSENT ORDERS WITH CIVIL CHARGES

Oil spills are subject to a unique civil charge scheme under § 62.1-44.34:20 in which civil charges are to be calculated based upon the amount of petroleum released into the environment in violation of Code § 62.1-44.34:14 *et seq.*, up to $100 per gallon.

Using the Oil Spill Civil Charge Worksheet, which is found after this section, staff evaluate and assess a dollar value of from $0 to $100 for each of seven statutory factors, including: willfulness of violation; damage or injury to state waters or beneficial uses; history of noncompliance; actions undertaken in reporting, containing, and cleaning up the discharge; cost of containment and clean up; nature/degree of injury to health, welfare or property; and available technology to prevent, contain, reduce or eliminate the discharge.

The dollar value for each of the seven statutory factors is then added, and the total divided by seven to provide an average "per gallon" civil charge figure. This civil charge figure is then multiplied by the total number of gallons of petroleum released to the environment to determine the Baseline Civil Charge.

Thereafter, an adjustment of up to 30% may be made based on the following factors: size and type of facility owner; history of compliance; cooperativeness/quick settlement; promptness of injunctive response/good faith effort to comply; ability to pay; and strategic considerations. These adjustment factors are discussed in Section B above. Decisions regarding adjustment are not subject to administrative appeal or judicial review. The justification for applying an adjustment must be reasonable and documented in the ERP.

The Baseline Civil Charge minus adjustments results in the Final Recommended Civil Charge. In the event that facts are gleaned during the negotiations that would prompt further adjustment of the Final Recommended Civil Charge, the ERP must be amended accordingly. Clearly documented, case-specific facts may justify adjustment of the Final Recommended Civil Charge for settlement purposes.

OIL SPILL CIVIL CHARGE WORKSHEET

i. Willfulness of Violation	$ Amount
	$
ii. Damage/Injury to State Waters or Impairment of Beneficial Use	
	$
iii. History of Non-Compliance	
	$
iv. Actions in Reporting/Containing/Cleaning Up the Discharge	
	$
v. Cost of Containment and Clean Up	
	$
vi. Nature/Degree of Injury to Health, Welfare and Property	
	$
vii. Available Technology to Prevent/Contain/Reduce/Eliminate Discharge	
	$
SUBTOTAL	$
(Subtotal _____) ÷ 7 = _____ ÷ 7 = _____ x (Gallons released to the environment _____) =	$

Promptness of Inj. Response Good Faith Effort to Comply	Size/Type of Facility Owner	History of Compliance	Ability to Pay	Cooperation Quick Settlement	Strategic Considerations
				TOTAL	$

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
Secretary of Natural Resources

PIEDMONT REGIONAL OFFICE
4949-A Cox Road
Glen Allen, Virginia 23060
(804) 527-5020
Fax (804) 527-5106
http://www.deq.state.va.us

Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

December 20, 2000

Mr. Steve Jones
Omega Protein Incorporated
P.O. Box 175
Heathsville, Virginia 22473

RE: Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Jones:

Enclosed are two originals of the proposed Consent Special Order affecting Omega Protein Incorporated. If the Order is acceptable, please have the two originals signed, and return them to me no later than December 29, 2000. We will then give the proposed Order a 30-day public notice in the Northumberland Echo and Virginia Registrar. We anticipate asking the Board to approve this Order at its next Board meeting in March 2001.

If you have any questions, please call me at (804) 527-5093.

Sincerely

Frank E. Lupini
Enforcement Specialist, Sr.

Enclosure
cc: John Barnes, w/ enclosure at 7393 Northumberland Hwy; Heathsville, Va.; 22473
Lyell Jett, w/ enclosure at Omega Protein P.O. Box 175; Heathsville, Va.;22473
Omega Protein Incorporated File VA0003867, w/o enclosure
Denise Mosca KSO, w/ enclosure

COMMONWEALTH of VIRGINIA

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Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

STATE WATER CONTROL BOARD ENFORCEMENT ACTION
SPECIAL ORDER BY CONSENT
ISSUED TO
OMEGA PROTEIN
VPDES VA0003867

SECTION A: Purpose

This is a Consent Special Order issued under the authority of Va. Code §§ 10.1-1185 and 62.1-44.15(8a) and (8d), between the State Water Control Board and Omega Protein, for the purpose of resolving certain violations of environmental law and regulations.

SECTION B: Definitions

Unless the context clearly indicates otherwise, the following words and terms have the meaning assigned to them below:

1. "Va. Code" means the Code of Virginia (1950), as amended.

2. "Board" means the State Water Control Board, a permanent citizens' board of the Commonwealth of Virginia as described in Va. Code §§ 10.1-1184 and 62.1-44.7.

3. "Department" or "DEQ" means the Department of Environmental Quality, an agency of the Commonwealth of Virginia as described in Va. Code § 10.1-1183.

4. "Director" means the Director of the Department of Environmental Quality.

5. "Order" means this document, also known as a Consent Special Order.

6. "Omega Protein" means Omega Protein Incorporated, certified to do business in Virginia and its affiliates, partners, subsidiaries, and parents.

7. "Facility" means the Omega Protein Sewage Treatment Plant located in Reedville, Virginia.

8. "PRO" means the Piedmont Regional Office of DEQ, located in Glen Allen, Virginia.

9. "Permit" means VPDES permit No. VA0003867, which became effective December 17, 1997 and expires December 17, 2002.

10. "O&M" means operations and maintenance.

SECTION C: Findings of Fact and Conclusions of Law

1. Omega Protein owns and operates a wastewater treatment facility in Northumberland County, Virginia. This facility is the subject of VPDES permit VA0003867, which allows Omega Protein to discharge treated wastewater into Cockrell's Creek and the Chesapeake Bay in strict compliance with terms, limitations and requirements outlined in the permit.

2. On April 28, 1999, DEQ executed a Consent Order with Omega for failing to report an unpermitted discharge. Omega paid a $7,500 civil penalty and the Order was closed in March 2000. Since the Order has closed, DEQ has noted numerous violations of the State Water Control Law.

3. On April 26, 2000, DEQ issued NOV No. 00-03-PRO-001 to Omega citing them for an unpermitted discharge created by sandblasting a vessel in the creek without the proper BMPs in place. In addition, Omega was cited for failure to meet the reporting requirements in its permit by 1) not reporting an unusual discharge which occurred after an equipment failure on July 7, 1999, 2) late submittals of BMP reporting, 3) failure to submit quarterly progress reports, and 4) improper toxicity testing.

4. On August 1, 2000, DEQ issued NOV No. W2000-05-K-001 to Omega citing them for late submittal of a quarterly progress report and total suspended solids violations in May 2000.

SECTION D: Agreement and Order

Accordingly, the Board, by virtue of the authority granted it in Va. Code § 62.1-44.15(8a) and (8d), orders Omega Protein, and Omega Protein agrees, to perform the actions described in Appendix A of this Order.

During the time that this Order is in effect, Omega Protein and DEQ agree that, until the VPDES permit is modified, compliance for TSS, BOD, and O&G will be determined at the sampling point for outfall 001. Omega further agrees to continue to monitor and report for TSS, BOD, and O&G at outfall 006. Results from the analysis at outfall 001 shall be included with the DMR submittal as a separate attachment.

In addition, the Board orders Omega Protein, and Omega Protein agrees, to pay a civil charge of $18,600 within 30 days of the effective date of the Order in settlement of the violations cited in this Order. Payment shall be made by check payable to the "Treasurer of Virginia", delivered to:

Receipts Control
Department of Environmental Quality
Post Office Box 10150
Richmond, Virginia 23240

SECTION E: Administrative Provisions

1. The Board may modify, rewrite, or amend the Order with the consent of Omega Protein, for good cause shown by Omega Protein, or on its own motion after notice and opportunity to be heard.

2. This Order only addresses and resolves those violations specifically identified herein. This Order shall not preclude the Board or the Director from taking any action authorized by law, including, but not limited to: (1) taking any action authorized by law regarding any additional, subsequent, or subsequently discovered violations; (2) seeking subsequent remediation of the facility as may be authorized by law; and/or (3) taking subsequent action to enforce the terms of this order. Nothing herein shall affect appropriate enforcement actions by other federal, state, or local regulatory authority, whether or not arising out of the same or similar facts.

3. For purposes of this Order and subsequent actions with respect to this Order, Omega Protein admits the jurisdictional allegations, factual findings, and conclusions of law contained herein.

4. Omega Protein consents to venue in the Circuit Court of the City of Richmond for any civil action taken to enforce the terms of this Order.

5. Omega Protein declares it has received fair and due process under the Administrative Process Act, Va. Code §§ 9-6.14:1 *et seq.*, and the State Water Control Law and it waives the right to any hearing or other administrative proceeding authorized or required by law or regulation, and to any judicial review of any issue of fact or law contained herein. Nothing herein shall be construed as a waiver of the right to any administrative proceeding for, or to judicial review of, any action taken by the Board to enforce this Order.

6. Failure by Omega Protein to comply with any of the terms of this Order shall constitute a violation of an order of the Board. Nothing herein shall waive the initiation of appropriate enforcement actions or the issuance of additional orders as appropriate by the Board or the Director as a result of such violations. Nothing herein shall affect appropriate enforcement actions by any other federal, state, or local regulatory authority.

7. If any provision of this Order is found to be unenforceable for any reason, the remainder of the Order shall remain in full force and effect.

8. Omega Protein shall be responsible for failure to comply with any of the terms and conditions of this Order unless compliance is made impossible by earthquake, flood, other acts of God, war, strike, or such other occurrence. Omega Protein shall show that such circumstances were beyond its control and not due to a lack of good faith or diligence on its part. Omega Protein shall notify the DEQ Regional Director in writing when circumstances are anticipated to occur, are occurring, or have occurred that may delay compliance or cause noncompliance with any requirement of the Order. Such notice shall set forth:

   a. the reasons for the delay or noncompliance;

   b. the projected duration of any such delay or noncompliance;

   c. the measures taken and to be taken to prevent or minimize such delay or noncompliance; and

   d. the timetable by which such measures will be implemented and the date full compliance will be achieved.

   Failure to so notify the Regional Director within 24 hours of learning of any condition above, which the parties intend to assert will result in the impossibility of compliance, shall constitute a waiver of any claim to inability to comply with a requirement of this Order.

9. This Order is binding on the parties hereto, their successors in interest, designees and assigns, jointly and severally.

10. This Order shall become effective upon execution by both the Director or his designee and Omega Protein. Notwithstanding the foregoing, Omega Protein agrees to be bound by any compliance date which precedes the effective date of this Order.

11. This Order shall continue in effect until the Director or Board terminates the Order in his or its sole discretion upon 30 days written notice to Omega Protein. Termination of this Order, or any obligation imposed in this Order, shall not operate to relieve Omega Protein from its obligation to comply with any statute,

regulation, permit condition, other order, certificate, certification, standard, or requirement otherwise applicable.

12. By its signature below, Omega Protein voluntarily agrees to the issuance of this Order.

And it is so ORDERED this _____day of _____, 2001.

_____
Dennis H. Treacy, Director
Department of Environmental Quality

Omega Protein voluntarily agrees to the issuance of this Order.

By: _____

Date: _____

Commonwealth of Virginia

City/County of _____

The foregoing document was signed and acknowledged before me this _____ day of _____, 2000, by _____, who is
(name)

_____ of Omega Protein, on behalf of the Corporation.
(title)

_____
Notary Public

My commission expires: _____.

APPENDIX A

Omega Protein shall:

1. **Immediately upon issuance of this Order**, develop and submit to PRO standard operating procedures to ensure that reporting violations do not reoccur at Omega Protein.

2. **Within thirty days of the issuance of this Order**, submit to the PRO a diagnostic evaluation (DE) of the Omega Protein wastewater treatment system. A state registered professional engineer must conduct the DE. The DE shall be used to determine if the facility, as built, can meet the NPDES permit limits at design flow. The State registered professional engineer shall submit a stamped letter to the Department certifying that the facility can or cannot meet permit limits at design flow as built.

3. If the DE indicates that construction of an upgrade is required for the facility to meet permit limits, then **sixty days from the issuance of the Order,** submit to the PRO a preliminary engineering report and an implementation schedule for the upgrade construction. The schedule, once approved by the PRO, shall become an enforceable part of this Order.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
Governor

John Paul Woodley, Jr.
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PIEDMONT REGIONAL OFFICE
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http://www.deq.state.va.us

Dennis H. Tree
Direct

Gerard Seeley, .
Piedmont Regional Direct

December 29, 2000

Mr. Steve Jones
Omega Protein Incorporated
P.O. Box 175
Reedville, Virginia 22539

RE: Proposed Consent Order
Omega Protein Incorporated
VPDES VA0003867

Dear Mr. Jones:

Enclosed are two originals of the proposed Consent Special Order affecting Omega Protein Incorporated. If the Order is acceptable, please have the two originals signed, and return them to me no later than January 8, 2001. We will then give the proposed Order a 30-day public notice in the Northumberland Echo and Virginia Registrar. We anticipate asking the Board to approve this Order at its next Board meeting in March 2001.

If you have any questions, please call me at (804) 527-5093.

Sincerely

Frank E. Lupini
Enforcement Specialist, Sr.

Enclosure
cc: Denise Mosca KSO, w/ enclosure

OMEGA PROTEIN

Memorandum

To: DENISE MOSCA

CC: STEVE JONES

From: LYELL JETT

Date: 01/11/01

Re: **QUARTERLY PROGRESS REPORT**

---

1) WE COMPLETED OUR FISHING SEASON IN EARLY DECEMBER 2000.
2) AMMONIA SAMPLES WERE TAKEN AND REPORTED TO YOUR OFFICE IN DECEMBER FROM OUTFALL 006
3) CYANIDE SAMPLES WERE NOT TAKEN DURING THAT TIME BUT, WILL BE TAKEN WHEN FISHING RESUMES IN MAY 2001

OMEGA PROTEIN

FAX

TO: Denise Mosca
FAX: 435-0485
FROM: Lyell Jett
PHONE:
DATE: 1-11-01
PAGES: 2
SUBJECT: 1/4 Lg Progress Report

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III
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Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

Mr. Steve Jones, General Manager
Omega Protein, Inc.
P.O. Box 175
Reedville, Virginia 22539

[redacted] 22 2001

Re: Omega Protein, Inc., VPDES Permit No. VA0003867and VAR540298

Dear Mr. Jones:

Enclosed is a copy of the report on the Wastewater Facility Inspection conducted at Omega Protein, Inc. on November 1, 2000. Please review the report carefully, and provide a written response addressing the compliance recommendation presented on page five of this report to this office by February 28, 2001.

Also enclosed is a copy of the report for the Laboratory Inspection conducted the same day. You will note that the facility received an unsatisfactory laboratory rating. The Laboratory Inspection Report Summary (page 3) identifies procedures that need to be corrected. This section of the report makes recommendations for corrective action. You are requested to respond to these recommendations, citing your corrective action for each item, by February 28, 2001.

Also enclosed is a copy of the report for the Storm Water Inspection conducted the same day. Please review the report carefully, and provide a written response addressing the compliance recommendation presented on page three of this report to this office by February 28, 2001

If you have any questions regarding these reports or the actions required, please contact me at (804) 527-5029.

Sincerely,

Camille S. Cook

Camille S. Cook
Environmental Inspector

Enclosure
Cc: DEQ – OWPS, Kilmarnock office
Mr. John Barnes

Piedmont Regional Office
WASTEWATER FACILITY INSPECTION REPORT

FACILITY NAME:	Omega Protein, Inc.	**INSPECTOR:**	Camille S. Cook CSCook
PERMIT No.:	VAR540298	**INSPECTION DATE:**	November 1, 2000
TYPE OF FACILITY:	Industrial, General Stormwater Permit	**REPORT COMPLETED:**	December 22, 2000
COUNTY/~~CITY~~:	Northumberland	**UNANNOUNCED INSPECTION:**	YES
REVIEWED BY:			

PRESENT DURING INSPECTION: Lyle Jett

I. OPERATIONAL UNIT REVIEW AND CONDITION:

General Storm Water Permit Outfall 001: Storm water runoff from the drainage area beside the dirt entrance road and parking lot beside the plant processing and storage buildings drain under the plant site to storm water Outfall 001. The process areas are covered and/or curbed so that storm water should be directed away from those areas. There may also be areas between the processing areas of the plant that may drain to the storm water outfall. There was no discharge at the time of the inspection. The storm water discharges to Cockrell Creek next to the VPDES Permit No. VA0003867 Outfall 006.

II. ULTIMATE DISPOSAL OF SOLIDS:

There is no disposal of solids.

III. FIELD DATA:

Flow:	_____MGD	**Dissolved Oxygen:**	___mg/L	**Contact Chlorine Res.:**	_____mg/L
pH:	__S.U	**Final Chlorine Res.:**	___ mg/L	**Temperature:**	_____ °C

Calibration Time/Initials/documentation:

Condition of Effluent: There was no discharge at the time of the inspection.

Condition of Receiving Stream: The receiving stream appeared normal.

Samples Collected during the inspection: No samples were collected.

IV. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

1. Has a SWPPP been developed and implemented? ☐ YES ■ **NO***

2. Was the SWPPP, compliance inspection report, and other information available and is the SWPPP current? ☐ YES ■ **NO***

3. Contents must include:

   Pollution prevention team identification and responsibilities ☐ YES ☐ **NO***

   Description of potential pollutant sources must include: ☐YES ☐ **NO***
   - Detailed site drainage map
   - Inventory of exposed materials
   - Updated list of spills and leaks of toxic or hazardous pollutants
   - Sampling data
   - Risk identification and summary of potential pollutant sources

   Measures and controls must include: ☐YES ☐ **NO***
   - Good housekeeping
   - Preventive maintenance
   - Spill prevention and response procedures
   - Quarterly inspections and visual exam of storm water samples plus documentation and follow up tracking and procedures
   - Employee training
   - Record keeping and internal reporting procedures
   - Sediment and erosion control
   - Management of run-off

   Annual Comprehensive site compliance evaluation? ☐YES ☐ **NO***
   - Visual inspection of all areas contributing to a storm water discharge with industrial activity; evaluation of measures to reduce pollutant loadings; observing structural storm water management measures, sediment and erosion control measures, and other structural pollution prevention measures; visual inspection of equipment needed to implement the plan
   - Based on results of evaluation, revise SWPPP
   - Compliance inspection report summarizing the scope of the evaluation, personnel making evaluation, dates of evaluation, major observations, actions taken, certification of compliance and signatory requirements met

   Requirements for Salt Storage ☐YES ☐ NO
   - Enclosed or covered to prevent exposure to precipitation? ☐ YES ☐ **NO*** ☐N/A

   Requirements for Facilities subject to Emergency Planning and Community Right to Know Act (EPCRA) Section 313 ☐ YES ☐N/A
   - Certified every 3 years or after modification by a Registered Professional Engineer? ☐ YES ☐ **NO*** ☐N/A

V. COMMENTS:

1. The new Storm Water General Permit VAR540298 was issued on October 4, 2000.
2. Mr. Lyle stated he thought the Storm Water Pollution Prevention Plan had been developed, but it could not be located during the inspection.
3. The storm water Outfall 001 must be identified on an area map and the drainage area must be calculated.
4. The visual examination of storm water quality must be conducted quarterly at Outfall 001.
5. The permit requires semi-annual monitoring (Jan. – June and July – Dec.) for the parameters listed in the Table in Part I.C. on Page 2 of the permit.

VI. GENERAL RECOMMENDATIONS:

1. Read the new Storm Water permit thoroughly. I have enclosed directions for completing the storm event information on the Discharge Monitoring Report written by J. R. Bell for your information.

VII. COMPLIANCE RECOMMENDATIONS/REQUEST FOR CORRECTIVE ACTION:

1. Develop and implement a Storm Water Pollution Prevention Plan including the contents as described in Part III and Part IV of the Storm Water permit.

Copies: DEQ - OWPS (attn.: B. Purcell)

FAX TRANSMISSION

COMMONWEALTH OF VIRGINIA

Department of Environmental Quality
PIEDMONT REGIONAL OFFICE

4949-A Cox Road
Glen Allen, Virginia 23260-6296
(804)527-5020
Fax: (804)527-5106

INTERNET: WWW.DEQ.STATE.VA.US

To: _____ **Date:** 8/25

Fax#: _____ **Pages:** 3

From: JR Bell **Phone:** 5275025

Subject: DMR Calculations

Comments:

To get answer for #4 see example below. Assumed 3 inch rain and 100 ft² drainage area.

3 inch rain = 3/12 or 0.25 ft of rain

100 ft² x 0.25 ft = 25 ft³ of runoff

25 ft³ x 7.48 gallons / ft³ = 187 gallons *

* Assuming it all runs off -- say on asphalt or concrete. If drainage area is grass or gravel you could estimate that only 1/2 or 3/4 runs off & adjust accordingly.

STEP-BY-STEP INS .UCTIONS FOR RECORDING .ONITORING RESULTS

A separate DMR is required for each storm event and each outfall sampled. Please make copies of the DMR form for future reporting. The words and phrases in italics in the following step-by-step instructions refer to specific locations or headings on the DMR.

1) **Name/Address**
Enter the *Permittee Name/Address* and *Facility Name*. Please include a contact name and phone number.

2) **Permit Number**
Enter the *Permit Number* for your facility. Your facility's permit number is on the first page of the permit.

3) **Outfall Number**
If you are submitting monitoring results for more than one outfall, you must record the *Outfall's Number*. You must assign a unique discharge number (e.g., 001, 002, etc.) to each outfall. Assign each outfall the same number it is assigned in your facility's storm water pollution prevention plan. If you wish to utilize the option in Part I. D. 4. of the permit concerning substantially identical effluents from two or more outfalls, please follow the specific instructions in section Part I. D. 4. for completion of this Discharge Monitoring Report.

4) **Monitoring Period**
Under *Monitoring Period*, check the dates for the beginning and end of the permit year covered by the DMR. Monitoring under Part I, Section B, of the permit is required once per year. Monitoring under Part I, Section C, of the permit is required twice yearly in the second and fourth years of the permit. One monitoring period is between January - June and one between July - December. A separate DMR should be submitted for each storm event sampled in a required time period. Monitoring may be waived under Part I, Section C for the fourth year for a pollutant if the second year average is less than or equal to the reporting requirements (see Part I, Section D, Paragraph 3).

5) **Storm Event Information**
Provide date and duration of the storm event(s) sampled. Rainfall measurement or estimates (in inches) of the storm event must be included as well as the duration between the event sampled and the end of the previous measurable (greater than 0.1 inches rainfall) storm event. An estimate of the total volume (in gallons) of the discharge sampled is also required.

6) **Sampling**
All samples must be collected from a discharge resulting from a storm of greater than 0.1 inches in rainfall and that occurs at least 72 hours after the previous storm of 0.1 inch or more. Grab samples must be taken during the first 30 minutes of the discharge, unless impracticable, in which case a grab sample may be taken during the first hour. If the grab sample is not taken during the first 30 minutes, an explanation of why this was not possible must be submitted with the DMR.

7) **Recording of Sample Results**
Under the *Concentration* column, record grab sample results in the *Maximum* column. Under the *No. Ex* column, enter a "Y" if the sample measurement during the monitoring period exceeded the effluent limitation for that parameter. Otherwise, leave the space blank. If the monitoring requirement for a pollutant is waived under Part I, Section C for low concentration, mark (Y) Yes in the Monitoring Waived column.

8) **Identification/ Certification**
Enter *Name/Title of Principal Executive Officer, Signature of Principal Executive Officer or Authorized Agent*, and *Date* at the bottom of each page of the DMR after reading the Certification Statement.

DEPT. OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A COX ROAD
GLEN ALLEN, VIRGINIA 23060
(804) 527-5020

NOTE: READ PERMIT AND GENERAL INSTRUCTIONS
BEFORE COMPLETING FORM.

DEPT. OF ENVIRONMENTAL QUALITY
PIEDMONT REGIONAL OFFICE
4949-A COX ROAD
GLEN ALLEN, VIRGINIA 23060

VIRGINIA POLLUTANT ELIMINATION SYSTEM (VPDES)
DISCHARGE MONITORING REPORT (DMR)

TYPE: **STORM WATER**
Fats & Oils Products Facilities

PERMIT NUMBER	OUTFALL NO.
VAR540087	001

Check One	MONITORING PERIOD						
	YEAR	MO	DAY	TO	YEAR	MO	DAY
	2000	JULY	1		2000	DEC.	31
	2001	JAN.	1		2001	JUNE	30
	2002	JULY	1		2002	DEC.	31
	2003	JAN.	1		2003	JUNE	30

PERMITTEE NAME: Dean Foods Company
FACILITY NAME: Dean Foods Company
ADDRESS: 1595 Mary Street
Sandston
VA 23150

CONTACT PERSON ______________________ TELEPHONE ______________

PARAMETER		CONCENTRATION MINIMUM	AVERAGE	MAXIMUM	UNITS	NO. EX.	Monitoring Waived
003 Biochemical Oxygen Demand	REPORTED	******	******				
	Monitoring Cut-Off	******	******	30	mg/l		(Y) Yes or (N) No
068 Total Kjeldahl Nitrogen	REPORTED	******	******				
	Monitoring Cut-Off	******	******	1.5	mg/l		(Y) Yes or (N) No
389 Nitrate plus Nitrite Nitrogen	REPORTED	******	******				
	Monitoring Cut-Off	******	******	0.68	mg/l		(Y) Yes or (N) No
004 Total Suspended Solids	REPORTED	******	******				
	Monitoring Cut-Off	******	******	100	mg/l		(Y) Yes or (N) No
	REPORTED	******	******	******			
	Monitoring Cut-Off	******	******	******			(Y) Yes or (N) No
	REPORTED	******	******	******			
	Monitoring Cut-Off	******	******	******			(Y) Yes or (N) No
	REPORTED	******	******	******			
	Monitoring Cut-Off	******	******	******			(Y) Yes or (N) No
	REPORTED	******	******	******			
	Monitoring Cut-Off	******	******	******			(Y) Yes or (N) No
	REPORTED	******	******	******			
	Monitoring Cut-Off	******	******	******			(Y) Yes or (N) No
	REPORTED	******	******	******			
	Monitoring Cut-Off	******	******	******			(Y) Yes or (N) No

STORM EVENT INFORMATION			
DATE (1)	YR.	MO.	DAY
DURATION (2)	HRS	MIN	
PRECIP. AMOUNT (IN.) (3)			
RUNOFF VOL. (GAL.) (4)			
PRECEDING EVENT (5)	DAYS	HRS.	

estimate by multiplying Area being drained, in ft by the Precip amount, in (or inches/12)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U. S. C.. subsection 1001 and 33 U. S. C. subsection 1319. (Penalties under these statutes may include fines up to $10,000 and or maximum imprisonment of between 6 months and five years.)

PRINCIPLE EXECUTIVE OFFICER OR AUTHORIZED AGENT		DATE YR. MO. DAY
TYPED OR PRINTED NAME	SIGNATURE	

VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY

Wastewater Facility Inspection Report

Facility Name:	Omega Protein	**Facility No.:**	VA0003867
~~City~~/County:	Northumberland	**Inspection Agency:**	DEQ
Inspection Date:	November 1, 2000	**Date Form Completed:**	December 22, 2000
Inspector:	Camille S. Cook CSCook	**Time Spent:**	24 hrs. w/ travel & report
Reviewed By:		**Unannounced Insp.?**	Yes
		FY-Scheduled Insp.?	Yes

Present at Inspection: Lyle Jett

TYPE OF FACILITY:

Domestic		Industrial	
[ ] Federal	[ ] Major	[x] Major	[ ] Primary
[ ] Non-Federal	[ ] Minor	[ ] Minor	[ ] Secondary

Population Served: approx.:____

Number of Connections: approx.:____

TYPE OF INSPECTION:

[x] Routine — Date of last inspection: June 21, 2000

[ ] Compliance — Agency: DEQ/PRO

[ ] Reinspection

EFFLUENT MONITORING:

Last month average: **(Influent) Date:** Other: _____	BOD: ___ mg/L	TSS: ____ mg/L	Flow: ___ MGD
Last month: **(Effluent) Date:** Other: _____	BOD: ___ mg/L	TSS: ___ mg/L	Flow:___ MGD
Quarter average: **(Effluent) Date:** Other:	BOD: ___ mg/L	TSS: ___ mg/L	Flow: ___ MGD

CHANGES AND/OR CONSTRUCTION

DATA VERIFIED IN PREFACE	[ ] Updated	[x] No changes
Has there been any new construction?	[ ] Yes*	[x] No
If yes, were plans and specifications approved?	[ ] Yes	[ ] No* [x] N/A
DEQ approval date:	N/A	

(A) PLANT OPERATION AND MAINTENANCE

1. Class and number of licensed operators: Class I – 0, Class II – 0, Class III – 2, Class IV – 0, Trainee - 0
2. Hours per day plant is staffed: 24 hours/day
3. Describe adequacy of staffing: [ ] Good [x] Average [ ] Poor*
4. Does the plant have an established program for training personnel? [ ] Yes [x] No
5. Describe the adequacy of the training program: [ ] Good [ ] Average [ ] Poor*
6. Are preventive maintenance tasks scheduled? [x] Yes [ ] No*
7. Describe the adequacy of maintenance: [ ] Good [x] Average [ ] Poor*
8. Does the plant experience any organic/hydraulic overloading? [ ] Yes* [x] No

   If yes, identify cause and impact on plant: N/A
9. Any bypassing since last inspection? [ ] Yes* [x] No
10. Is the on-site electric generator operational? [ ] Yes [ ] No* [x] N/A
11. Is the STP alarm system operational? [ ] Yes [ ] No * [x] N/A
12. How often is the standby generator exercised? [ ] Weekly [ ] Monthly [x] Other: N/A

    Power Transfer Switch? [ ] Weekly [ ] Monthly [x] Other: N/A

    Alarm System? [ ] Weekly [ ] Monthly [x] Other: N/A
13. When were the cross connection control devices last tested on the potable water service? N/A
14. Is sludge disposed in accordance with the approved sludge disposal plan? [ ] Yes [ ] No* [X] N/A
15. Is septage received by the facility? [ ] Yes [x] No

    Is septage loading controlled? [ ] Yes [ ] No * [x] N/A

    Are records maintained? [ ] Yes [ ] No* [x] N/A
16. Overall appearance of facility: [ ] Good [x] Average [ ] Poor*

Comments:

(B) PLANT RECORDS

1.	Which of the following records does the plant maintain?			
	Operational Logs for each unit process	[x] Yes	[ ] No*	[ ] N/A
	Instrument maintenance and calibration	[x] Yes	[ ] No*	[ ] N/A
	Mechanical equipment maintenance	[x] Yes	[ ] No*	[ ] N/A
	Industrial waste contribution **(Municipal Facilities)**	[ ] Yes	[ ] No*	[x] N/A
2.	What does the operational log contain?			
	Visual Observations	[x] Yes	[ ] No	[ ] N/A
	Flow Measurement	[x] Yes	[ ] No	[ ] N/A
	Laboratory Results	[x] Yes	[ ] No	[ ] N/A
	Process Adjustments	[x] Yes	[ ] No*	[ ] N/A
	Control Calculations	[ ] Yes	[ ] No	[x] N/A
	Other:	N/A		
3.	What do the mechanical equipment records contain:			
	As built plans and specs?	[x] Yes	[ ] No*	[ ] N/A
	Spare parts inventory?	[x] Yes	[ ] No*	[ ] N/A
	Manufacturers instructions?	[x] Yes	[ ] No*	[ ] N/A
	Equipment/parts suppliers?	[x] Yes	[ ] No*	[ ] N/A
	Lubrication schedules?	[x] Yes	[ ] No*	[ ] N/A
	Other:	N/A		
	Comments:	None		
4.	What do the industrial waste contribution records contain:	***(Applicable to municipal facilities only)***		
	Waste characteristics?	[ ] Yes	[ ] No*	[x] N/A
	Locations and discharge types?	[ ] Yes	[ ] No*	[x] N/A
	Impact on plant?	[ ] Yes	[ ] No*	[x] N/A
	Other:	N/A		
	Comments:	None		
5.	Are the following records maintained at the plant:			
	Equipment maintenance records	[x] Yes	[ ] No*	[ ] N/A
	Operational Log	[x] Yes	[ ] No*	[ ] N/A
	Industrial contributor records	[ ] Yes	[ ] No*	[x] N/A
	Instrumentation records	[x] Yes	[ ] No*	[ ] N/A
	Sampling and testing records	[x] Yes	[ ] No*	[ ] N/A
6.	Are records maintained at a different location?	[ ] Yes	[x] No	
	Where are the records maintained?	All are available on site.		
7.	Were the records reviewed during the inspection	[x] Yes	[ ] No	
8.	Are the records adequate and the O & M Manual current?	[x] Yes	[ ] No*	[ ] N/A
9.	Are the records maintained for required 3-year period?	[x] Yes	[ ] No*	

Comments:

(C) SAMPLING

1.	Are sampling locations capable of providing representative samples?	[x] Yes	[ ] No*	[ ] N/A
2.	Do sample types correspond to those required by the permit?	[x] Yes	[ ] No*	[ ] N/A
3.	Do sampling frequencies correspond to those required by the permit?	[x] Yes	[ ] No*	[ ] N/A
4.	Are composite samples collected in proportion to flow?	[x] Yes	[ ] No*	[ ] N/A
5.	Are composite samples refrigerated during collection?	[x] Yes	[ ] No*	[ ] N/A
6.	Does plant maintain required records of sampling?	[x] Yes	[ ] No*	[ ] N/A
7.	Does plant run operational control tests?	[x] Yes	[ ] No*	[ ] N/A

Comments:

(D) TESTING

1. Who performs the testing?
   [x] Plant/ Lab
   [ ] Central Lab
   [x] Commercial Lab - Name: **Clifford & Assoc.**

If plant performs any testing, complete 2-4.

2.	What method is used for chlorine analysis?	N/A		
3.	Is sufficient equipment available to perform required tests?	[x] Yes	[ ] No*	[ ] N/A
4.	Does testing equipment appear to be clean and/or operable?	[x] Yes	[ ] No*	[ ] N/A

Comments: Please see enclosed DEQ *Laboratory Inspection Report*.

(E) FOR INDUSTRIAL FACILITIES W/ TECHNOLOGY BASED LIMITS

1. Is the production process as described in the permit application? (If no, describe changes in comments)

   [x] Yes [ ] No* [ ] N/A

2. Do products and production rates correspond to the permit application? (If no, list differences in comments section)

   [x] Yes [ ] No* [ ] N/A

3. Has the State been notified of the changes and their impact on plant effluent?

   [ ] Yes [ ] No* [x] N/A

Comments: None

FOLLOW UP TO COMPLIANCE RECOMMENDATIONS FROM THE JUNE 21, 2000 DEQ INSPECTION:

1. Calibrate flow meter at Outfall 002 annually. [Flow meter at Outfall 002 was calibrated]

FOLLOW UP TO GENERAL RECOMMENDATIONS FROM THE JUNE 21, 2000 DEQ INSPECTION:

1. None

INSPECTION REPORT SUMMARY

Compliance Recommendations/Request for Corrective Action:

1. Repair the discharge valve in the lagoon so that the discharge at Outfall 002 can be regulated. The valve must be able to be closed so that an unplanned discharge does not occur.

General Recommendations/Observations:

1. None

Comments:

Outfall 006 is a new outfall identified in the most recent permit reissuance that combines former outfalls 001, 004, and 005. Outfall 006 is the wastestream for the scrubbers (air pollution control equipment) and an emergency discharge for the evaporator condensate and noncontact cooling water from the evaporators.

Areas of emphasis (Compliance Assessment) – check all that apply:

[x] Yes [ ] No		Operational Units
[ ] Yes [x] No		Evaluation of O & M Manual
[ ] Yes [x] No		Maintenance Records
[ ] Yes [ ] No	[x] N/A	Pathogen Reduction & Vector Attraction Reduction
[ ] Yes [ ] No	[x] N/A	Sludge Disposal Plan
[ ] Yes [ ] No	[x] N/A	Groundwater Monitoring Plan
[x] Yes [ ] No	[ ] N/A	Storm Water Pollution Prevention Plan
[x] Yes [ ] No	[ ] N/A	Permit Special Conditions
[x] Yes [ ] No	[ ] N/A	Permit Water Quality Chemical Monitoring
[x] Yes [ ] No	[ ] N/A	Laboratory Records (see Lab Report)

UNIT PROCESS: Ponds/Lagoons

1.	Type:	[x] Aerated	[ ] Unaerated	[ ] Polishing
2.	No. of cells: 2 Number in Operation: 2			
3.	Color:	[ ] Green	[x] D. Brown	[ ] L. Brown [ ] Grey [ ] Other__
4.	Odor:	[ ] Septic *	[ ] Earthy	[x] None [ ] Other:_____
5.	System operated in:	[x] Series	[ ] Parallel	[ ] N/A
6.	If aerated, are lagoon contents mixed adequately?	[x] Yes	[ ] No *	[ ] N/A
7.	If aerated, is aeration system operating properly?	[x] Yes	[ ] No *	[ ] N/A
8.	Evidence of following problems:			
	a. Vegetation in lagoon or dikes?	[ ] Yes *	[x] No	
	b. Rodents burrowing on dikes?	[ ] Yes *	[x] No	
	c. Erosion?	[ ] Yes *	[x] No	
	d. Sludge bars?	[ ] Yes *	[x] No	
	e. Excessive foam?	[ ] Yes *	[x] No	
	f. Floating material?	[ ] Yes *	[x] No	
9.	Fencing intact?	[x] Yes	[ ] No *	
10.	Grass maintained properly:	[x] Yes	[ ] No	
11.	Level control valves working properly?	[x] Yes	[ ] No *	[ ] N/A
12.	Effluent discharge elevation:	[ ] Top	[x] Middle	[ ] Bottom
13.	Available freeboard:	approx. 4 ft.		
14.	Appearance of effluent:	[ ] Good	[x] Fair	[ ] Poor *
15.	Are monitoring wells present?	[ ] Yes	[x] No	
	Are wells adequately protected from runoff?	[ ] Yes	[ ] No *	[x] N/A
	Are caps on and secured?	[ ] Yes	[ ] No *	[x] N/A
16.	General condition:	[ ] Good	[x] Fair	[ ] Poor*

Comments: #8. Some scum was floating on the surface. There was a build up of dark brown to black solids along the edges of the pond. #12. The discharge valve is in a permanent open position at the end of the valve. It needs to be able to be opened and closed so only a planned discharge occurs. The two aerated lagoons operate in series and receive condensate water from the evaporators. Each pond has a curtain to improve biological treatment and extend retention time. Each pond is equipped with mechanical aerators and additional aeration is provided by diffusers. Four blowers (two in each building) are used to provide diffused air 24 hours/day. The lagoons are lowered when the aeration lines need servicing.

UNIT PROCESS: Flow Measurement

Outfall 002

[ ] Influent [ ] Intermediate [x] Effluent

1. Type measuring device: 90° v-notch weir w/ultrasonic sensor

2. Present reading: 14 gpm

3. Bypass channel? [ ] Yes [x] No
   Metered? [ ] Yes [ ] No* [x] N/A

4. Return flows discharged upstream from meter? [ ] Yes [x] No
   If Yes, identify: _____

5. Device operating properly? [x] Yes [ ] No*

6. Date of last calibration: 5/15/2000

7. Evidence of following problems:
   a. Obstructions? [ ] Yes* [x] No
   b. Grease? [ ] Yes* [x] No

8. General condition: [x] Good [ ] Fair [ ] Poor*

Comments: Outfall 002 is the discharge from the aerated lagoons. There was a discharge at the time of the inspection even though the top discharge opening (where a discharge normally occurs from) was above the surface of the water.

UNIT PROCESS: Flow Measurement

Outfall 006

[ ] Influent [ ] Intermediate [x] Effluent

1. Type measuring device: None

2. Present reading: Based on pump run times MGD

3. Bypass channel? [ ] Yes [x] No
   Metered? [ ] Yes [ ] No* [x] N/A

4. Return flows discharged upstream from meter? [ ] Yes [x] No
   If Yes, identify: N/A

5. Device operating properly? [ ] Yes [ ] No* [x] N/A

6. Date of last calibration: _____

7. Evidence of following problems:
   a. Obstructions? [ ] Yes* [x] No
   b. Grease? [ ] Yes* [x] No

8. General condition: [x] Good [ ] Fair [ ] Poor*

Comments: Outfall 006 is a new outfall that combines former Outfalls 001, 004 and 005. The automatic sampler collects 100 mL of sample every nine minutes for the 24 hr. composite.

UNIT PROCESS: Effluent/Plant Outfall

1. Type outfall: [x] Shore based [ ] Submerged

2. Type if shore based: [ ] Wingwall [x] Headwall [ ] Rip Rap [ ] N/A

3. Flapper valve? [ ] Yes [x] No

4. Erosion of bank? [ ] Yes* [x] No [ ] N/A

5. Effluent plume visible? [ ] Yes * [x] No

Comments: There is a flapper valve for Outfall 002, but Outfall 006 has no flapper valve.

6. Condition of outfall and supporting structures: [x] Good [ ] Fair [ ] Poor *

7. Final effluent, evidence of following problems:

   a. Oil sheen? [ ] Yes* [x] No

   b. Grease? [ ] Yes* [x] No

   c. Sludge bar? [ ] Yes* [x] No

   d. Turbid effluent? [ ] Yes* [x] No

   e. Visible foam? [ ] Yes* [x] No

   f. Unusual odor? [ ] Yes* [x] No

Comments:

cc:

[x] Owner: c/o Mr. Steve Jones, General Manager

[ ] Operator:_____

[ ] Local Health Department:_____

[ ] VDH Engineering Field Office: ECEEField Office

[ ] VDH/Central Office - DWE

[x] DEQ - OWPS, attn: Bill Purcell

[x] DEQ - Regional Office File

[x] EPA - Region III

DEPARTMENT · ENVIRONMENTAL QUALITY - WATER DIVISION

LABORATORY INSPECTION REPORT

Form Updated 3/7/2000

FACILITY NO:	INSPECTION DATE:	PREVIOUS INSP. DATE:	PREVIOUS RATING:	TIME SPENT:
VA0003867	November 1, 2000	June 21, 2000	Unsatisfactory	12 hours w/ travel & report

NAME/ADDRESS OF FACILITY:	FACILITY CLASS:	FACILITY TYPE:	UNANNOUNCED INSPECTION?	FY-SCHEDULED INSPECTION?
Omega Protein P.O. Box 175 Reedville, Virginia 22539	(x) MAJOR ( ) MINOR ( ) SMALL ( ) VPA/NDC	( ) MUNICIPAL (x) INDUSTRIAL ( ) FEDERAL ( ) COMMERCIAL LAB	(x) YES ( ) NO	(x) YES ( ) NO

INSPECTOR(S):	REVIEWERS:	PRESENT AT INSPECTION:
Camille S. Cook CSCook	Qcinc 1/19/01	Lyle Jett

LABORATORY EVALUATION	RATING		
	SAT	QUAL	UNSAT
LABORATORY RECORDS			X
GENERAL SAMPLING & ANALYSIS	X		
LABORATORY EQUIPMENT		X	
TEMPERATURE ANALYSIS PROCEDURE	X		
pH ANALYSIS PROCEDURE	X		

QUALITY ASSURANCE/QUALITY CONTROL

Y/N	QUALITY ASSURANCE METHOD	PARAMETERS	FREQUENCY
N	REPLICATE SAMPLES		
N	SPIKED SAMPLES		
N	STANDARD SAMPLES		
N	SPLIT SAMPLES		
N	SAMPLE BLANKS		
N	OTHER		
N	EPA-DMR PE SAMPLES?	RATING:	
N	QC SAMPLES PROVIDED?	RATING: ( ) SAT ( ) UNSAT (X) NA	

COPIES TO: (X) DEQ - PRO; (X) OWPS; ( ) VDH-EEFO and DWE; (X) OWNER; (X) EPA-Region III; (x) Other: Kilmarnock office

FACILITY #: VA0003867

LABORATORY RECORDS SECTION ***( ) SAT*** ***( ) QUAL*** ***(X) UNSAT***

LABORATORY RECORDS INCLUDE THE FOLLOWING:

X	SAMPLING DATE	X	ANALYSIS DATE	N/A	CONT MONITORING CHART
X	SAMPLING TIME	X	ANALYSIS TIME	X	INSTRUMENT CALIBRATION
X	SAMPLE LOCATION	X	TEST METHOD	X	INSTRUMENT MAINTENANCE
				X	CERTIFICATE OF ANALYSIS

WRITTEN INSTRUCTIONS INCLUDE THE FOLLOWING:

X	SAMPLING SCHEDULES	X	CALCULATIONS	X	ANALYSIS PROCEDURES

	YES	NO	N/A
DO ALL ANALYSTS INITIAL THEIR WORK?	X		
DO BENCH SHEETS INCLUDE ALL INFORMATION NECESSARY TO DETERMINE RESULTS?	X		
IS THE DMR COMPLETE AND CORRECT? MONTH(S) REVIEWED: **See attached October 2000 DMR, and associated bench sheets and data.**		X	
ARE ALL MONITOIRNG VALUES REQUIRED BY THE PERMIT REPORTED?	X		

GENERAL SAMPLING AND ANALYSIS SECTION ***(X) SAT*** ***( ) QUAL*** ***( ) UNSAT***

	YES	NO	N/A
ARE SAMPLE LOCATION(S) ACCORDING TO PERMIT REQUIREMENTS?	X		
ARE SAMPLE COLLECTION PROCEDURES APPROPRIATE?	X		
IS SAMPLE EQUIPMENT CONDITION ADEQUATE?	X		
IS FLOW MEASUREMENT ACCORDING TO PERMIT REQUIREMENTS?	X		
ARE COMPOSITE SAMPLES REPRESENTATIVE OF FLOW?	X		
ARE SAMPLE HOLDING TIMES AND PRESERVATION ADEQUATE?	X		
IF ANALYSIS IS PERFORMED AT ANOTHER LOCATION, ARE SHIPPING PROCEDURES ADEQUATE? LIST PARAMETERS AND NAME & ADDRESS OF LAB: **BOD_5, TSS, NH_3-N, fecal coliform, Total N, Total P, oil & grease, cyanide, Clifford & Assoc., Fredericksburg**	X		

LABORATORY EQUIPMENT SECTION ***( ) SAT*** ***(X) QUAL*** ***( ) UNSAT***

	YES	NO	N/A
IS LABORATORY EQUIPMENT IN PROPER OPERATING RANGE?	X		
ARE ANNUAL THERMOMETER CALIBRATION(S) ADEQUATE?		X	
IS THE LABORATORY GRADE WATER SUPPLY ADEQUATE?			X
ARE ANALYTICAL BALANCE(S) ADEQUATE?			X

FACILITY NAME:	FACILITY NO:	INSPECTION DATE:
Omega Protein	VA0003867	November 1, 2000

OVERALL LABORATORY RATING:	**( ) Satisfactory** **( ) Satisfactory with Qualifications** **(X) Unsatisfactory**

LABORATORY RECORDS

Unsatisfactory

The July, August and October 2000 Discharge Monitoring Reports were reviewed. The DMRs reviewed were completed incorrectly. A certificate to operate Outfall 006, the newly combined contact and non-contact cooling waters, was issued May 31, 2000. Omega Protein was directed to use the DMR for Outfall 006 that was transmitted to the facility with the permit modification dated March 17, 2000. The DMRs for Outfalls 001, 004 and 005 were to be discarded and only Outfall 006 was to be used for the combined outfall. **All permit required monitoring conducted for Outfall 006 must be a combined sample collected at Outfall 006 (including Outfalls 001, 004 and 005) and reported on the DMR for Outfall 006 until the permit is modified or a Consent Order, which may change the permit monitoring requirements, is issued.** The October DMR for Outfall 002 was completed correctly; however, it appears the contract lab performing the analysis miscalculated the BOD_5 for the October 20 sample. A value of 69.2 mg/L was reported, but after reviewing the bench sheet, it appears the result should have been 47 mg/L.

GENERAL SAMPLING AND ANALYSIS

Satisfactory

LABORATORY EQUIPMENT

Satisfactory with Qualifications

All thermometers used in VPDES measurements, as well as thermometers used to document sample preservation, must be checked annually against a NIST or NIST traceable thermometer. Additionally, the thermometers should be tagged with the correction value (difference from the NIST thermometer), and the date checked.

MICROBIAL PARAMETERS

Satisfactory

COMMENTS

ANALYST: J. R. Hall (from June 21, 2000 inspection)	FACILITY No. VA0003867

Parameter: Hydrogen Ion (pH)
Method: Electrometric
3/96

METHOD OF ANALYSIS:

X	18th EDITION STANDARD METHODS-4500-H-B
	EPA METHODS FOR CHEMICAL ANALYSIS-150.1
	ASTM-D1293-84(90)(A or B)
	USGS-METHODS IN WATER AND FLUVIAL SEDIMENTS-I-1586-85

		Y	N
1)	**Is the electrode in good condition (no chloride precipitate, etc.)?**	X	
2)	Is electrode storage solution in accordance with manufacturer's instructions?	X	
3)	**Is meter calibrated on at least a daily basis?**	X	
4)	**Are two buffers which bracket the anticipated range of the sample used to calibrate the meter? (For meters not capable of performing a two point calibration is a second buffer which brackets the sample pH analyzed and found to be within ±.1 s.u. of the expected value?**	X	
5)	Is meter calibration documented?	X	
6)	**Does meter read within 0.1 unit for the pH of the second buffer solution?**	X	
7)	**Do the buffer solutions appear to be free of contamination or growths?**	X	
8)	Are buffer solutions within their listed shelf life or have they been prepared within the last 4 weeks?	X	
9)	**Is the cap or sleeve covering the access hole on the reference electrode removed when measuring pH?**	N/A	
10)	Is the temperature of buffer solutions and samples measured prior to testing (disregard if ATC is used)?	X	
11)	Was the meter adequately adjusted for temperature (disregard if ATC is used)?	X	
12)	Was the electrode rinsed between solutions?	X	
13)	Was the electrode blotted dry between solutions (disregard if rinse is next solution)?	X	
14)	**Is the sample stirred gently at a constant speed during measurement?**	X	
15)	**Does the meter hold a steady reading after reaching equilibrium?**	X	

PROBLEMS:	NONE		
RATING:	SATISFACTORY (X)	UNSAT ( )	SAT W/ QUAL: ( )
Comments:			

ANALYST: J. R. Hall (from June 21, 2000 inspection)	FACILITY No. VA0003867

Parameter: Temperature
Method: Thermometric
3/96

METHOD OF ANALYSIS:

X	18th EDITION OF STANDARD METHODS-2550 B
	TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF USGS, BOOK 1, CHAP. D1, 1975
	EPA METHODS OF CHEMICAL ANALYSIS-170.1

		Y	N
1)	Is a good mercury filled or dial type centigrade thermometer or thermistor used?	X	
2)	Are the thermometers markings etched on the capillary glass?	X	
3)	**Does the thermometer have a scale adequate to meet permit monitoring requirements?**	X	
4)	**Is the mercury continuous with no air spaces?**	X	
5)	**Is the thermometer immersed until a steady reading is obtained?**	X	

PROBLEMS:	NONE		
RATING:	SATISFACTORY (X)	UNSAT ( )	SAT W/ QUAL: ( )
Comments:			

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
SAMPLE ANALYSIS HOLDING TIME/CONTAINER/PRESERVATION CHECK SHEET
3/98

FACILITY NAME: Omega Protein									VPDES NO: VA0003867				DATE: November 1, 2000
HOLDING TIMES						SAMPLE CONTAINER				PRESERVATION				
PARAMETER	APPROVED	MET? (U)		LOGGED? (Q)		ADEQ. VOLUME (Q)		APPROP. TYPE (Q)		APPROVED	MET? (U)		CHECKED? (Q)	
		Y	N	Y	N	Y	N	Y	N		Y	N	Y	N
BOD5 & CBOD5	48 HOURS	X		X		X		X		ANALYZE 2 HRS or 4° C	X		X	
TSS	7 DAYS	X		X		X		X		4° C	X		X	
FECAL COLIFORM	6 HRS & 2 HRS TO PROCESS									4° C (1 HOUR) + .008% $Na_2S_2O_3$				
PH	15 MIN.	X		X		X		X		N/A				
CHLORINE	15 MIN.									N/A				
DISSOLVED O_2	15 MIN./IN SITU									N/A				
TEMPERATURE	IMMERSION STAB.									N/A				
OIL & GREASE	28 DAYS	X		X		X		X		4° C + H_2SO_4/HCL pH < 2	X		X	
AMMONIA	28 DAYS	X		X		X		X		4° C + H_2SO_4 pH < 2DECHLOR	X		X	
TKN	28 DAYS	X		X		X		X		4° C + H_2SO_4 pH < 2DECHLOR	X		X	
NITRATE	48 HOURS									4° C				
NITRATE + NITRITE	28 DAYS	X		X		X		X		4° C + H_2SO_4 pH < 2	X		X	
NITRITE	48 HOURS									4° C				
PHOSPHATE, ORTHO	48 HOURS									FILTER, 4° C				
TOTAL PHOS.	28 DAYS	X		X		X		X		4° C + H_2SO_4 pH < 2	X		X	
METALS (except Hg)	6 MONTHS									HNO_3 pH < 2				
MERCURY	28 DAYS									HNO_3 pH < 2				
CYANIDE	14 DAYS	X		X		X		X		4° C + NaOH pH > 12	X		X	
RATING: Satisfactory										RATING: Satisfactory				
Comments:														

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
EQUIPMENT TEMPERATURE LOG/THERMOMETER CALIBRATION CHECK SHEET
3/98

FACILITY NAME: Omega Protein								**FACILITY NO: VA0003867**				**DATE: November 1, 2000**
EQUIPMENT	RANGE	IN RANGE(U)		INSPECT READING °C	CHECK & LOG DAILY (Q)		CORRECT INCREMENT (U)		ANNUAL THERMOMETER CALIBRATION (Q)			
									DATE CHECKED	MARKED		CORR FACTOR	INSPECT TEMP °C
		Y	N		Y	N	Y	N		Y	N		
SAMPLE REFRIGER.	1-4° C	X		2	X		X		7/5/2000		X		
AUTO SAMPLER (006)	1-4° C	X		4	X		X		7/5/2000		X		
BOD INCUBATOR	20° C ± 1° C												
SOLIDS DRYING OVEN	103-105° C												
WATER BATH	44.5 ± .2° C												
INCUBATOR	35 ± .5° C												
AUTOCLAVE	121° C IN 30 MIN												
HOT AIR STERILIZING	170 ± 10° C												
O & G WATER BATH	70 ± 2° C												
REAGENT REFRIGER.	1-4° C												
pH METER thermometer	± 1° C	X							7/5/2000				
DO METER	± 1° C												
THERMOMETER-OUTFALL	± 1° C	X			X		X		7/5/2000			+1° C	
AUTO SAMPLER (002)	1-4° C	X		4	X		X		7/5/2000			+1° C	

RATING: Satisfactory w/qualifications	Comments: The thermometers must be checked against a NIST or NIST traceable thermometer annually and each working thermometer must be tagged with the date checked and correction factor, if any..

DEPARTMENT OF ENVIRONMENT QUALITY - DMR Verification

Omega Protein, Inc. — VPDES #VA0003867, Outfall 006
Inspector: Camille S. Cook — Month: October 2000

DAY	DATE	FLOW (MGD)	BOD (mg/l)	* BOD (kg/D)	TSS (mg/l)	* TSS (kg/D)	P, Total (mg/l)	P, Total (kg/D)	N, Total (mg/l)	N, Total (kg/D)	NH3-N (mg/l)	NH3-N (kg/D)	O & G (mg/l)	O & G (kg/D)
S	1	6.084												
M	2													
T	3													
W	4	1.661	6.4	40.2	6.8	55.3							5.0	31.4
T	5	14.394	6.4	348.7	5.2	283.3					12.27	666.5	5.0	272.4
F	6	13.291	6.2	311.9	7.0	352.1	0.165	9.3	9.71	488.5	5.04	253.5	5.0	251.5
S	7	5.428												
S	8													
M	9													
T	10													
W	11													
T	12													
F	13	12.183	12.8	590.2	14.3	659.4	0.181	8.3	13.42	618.8	8.68	400.3	5.2	239.8
S	14	13.291	15.8	784.8	15.2	764.7							5.0	251.5
S	15	12.277	16.4	762.1	11.9	553.0							5.0	232.3
M	16													
T	17	5.743	32.9	715.1	37.6	817.3							6.3	136.9
W	18	6.646	9.2	231.4	10.8	271.7							5.0	125.8
T	19	6.182	9.2	215.3	12.0	280.8	0.155	3.6	3.94	92.2	1.01	23.6	5.0	117.0
F	20	7.403												
S	21	10.827												
S	22	13.291												
M	23	13.291	3.4	171.0	10.0	503.1	0.141	7.1	3.69	185.6	3.30	166.0	5.0	251.5
T	24	13.291	6.4	322.0	6.9	347.1							5.0	251.5
W	25	3.650	7.2	99.5	8.1	111.9							5.0	69.1
T	26	13.291												
F	27	13.291												
S	28	13.291												
S	29	5.226												
M	30													
T	31													
W														
T														
F														
S														
AVERAGES		9.716	11.0	382.7	12.3	416.6	0.166	7.1	7.69	346.3	6.06	302.4	5.1	185.9

12 = # BOD samples — 12 = # TSS samples — 4 = # N samples — 12 = # O & G samples
21 = # days in month — 4 = # P samples — 5 = # NH3-N samples

* Loading (kg/D) = Flow (MGD) X Concen. (mg/l) X 3.785

Max. Daily Loading & Concen. = Max. Daily Value
Aver. Monthly Loading & Concen. = Aver. of ALL data

THEREFORE:		Ave. Load.	Max. Load.	Ave. Concen.	Max. Concen.	Min. Concen.	Mon. Ave.
	BOD	382.7	784.8	11.0	32.9	N/A	N/A
	TSS	416.6	817.3	12.3	37.6	N/A	N/A
	P, Total	7.1	9.3	0.17	0.19	N/A	N/A
	N, Total	346.3	618.8	7.69	13.42	N/A	N/A
	NH3-N	302.4	666.5	6.06	12.27	N/A	N/A
	O & G	185.9	272.4	5.1	6.3	N/A	N/A
	Fecal	N/A	N/A	N/A	N/A	N/A	N/A
Max. Flow		14.394	MGD	Ave. Flow	9.716	N/A	N/A
	pH	N/A	N/A	N/A	N/A	N/A	N/A
	Temp	N/A	N/A	N/A	N/A	N/A	#DIV/0!
	DeCl	N/A	N/A	N/A	Non-Det.	N/A	N/A

DEPARTMENT OF ENVIRONMENT QUALITY - DMR Verification

Omega Protein, Inc. VPDES #VA0003867, Outfall 002
Inspector: Camille S. Cook Month: October 2000

DAY	DATE	FLOW (MGD)	BOD (mg/l)	* BOD (kg/D)	TSS (mg/l)	* TSS (kg/D)	P, Total (mg/l)	P, Total (kg/D)	N, Total (mg/l)	N, Total (kg/D)	NH3-N (mg/l)	NH3-N (kg/D)	O & G (mg/l)	O & G (kg/D)
S	1	0.254												
M	2	0.241												
T	3	0.028												
W	4	0.138												
T	5	0.040												
F	6	0.188												
S	7	0.296												
S	8	0.142												
M	9	0.151												
T	10	0.088	119.0	39.8	340.0	113.2					99.70	33.2	5.0	1.7
W	11	0.055												
T	12	0.098												
F	13	0.166												
S	14	0.167												
S	15	0.098												
M	16	0.326												
T	17	0.107									98.60	39.9		
W	18	0.271												
T	19	0.245												
F	20	0.207	69.2	54.1	24.0	18.8					116.00	90.7	5.0	3.9
S	21	0.161												
S	22	0.192												
M	23	0.223												
T	24	0.218												
W	25	0.226												
T	26	0.216												
F	27	0.346												
S	28	0.424												
S	29	0.268												
M	30	0.188												
T	31	0.053												
W														
T														
F														
S														
AVERAGES		0.188	94.1	46.9	182.0	66.0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	104.77	54.6	5.0	2.8

2 = # BOD samples 2 = # TSS samples 0 = # N samples 2 = # O & G samples
31 = # days in month 0 = # P samples 3 = # NH3-N samples

* Loading (kg/D) = Flow (MGD) X Concen. (mg/l) X 3.785

Max. Daily Loading & Concen. = Max. Daily Value
Aver. Monthly Loading & Concen. = Aver. of ALL data

THEREFORE:		Ave. Load.	Max. Load.	Ave. Concen.	Max. Concen.	Min. Concen.	Mon. Ave.
	BOD	46.9	54.1	94.1	119.0	N/A	N/A
	TSS	66.0	113.2	182.0	340.0	N/A	N/A
	P, Total	#DIV/0!	0.0	#DIV/0!	0.00	N/A	N/A
	N, Total	#DIV/0!	0.0	#DIV/0!	0.00	N/A	N/A
	NH3-N	54.6	90.7	104.77	116.00	N/A	N/A
	O & G	2.8	3.9	5.0	5.0	N/A	N/A
	Fecal	N/A	N/A	N/A	N/A	N/A	N/A
Max. Flow		0.424	MGD	Ave. Flow	0.188	N/A	N/A
	pH	N/A	N/A	N/A	8.1	7.2	N/A
	Temp	N/A	N/A	N/A	N/A	12.0	20.00
	DeCl	N/A	N/A	N/A	Non-Det.	N/A	N/A

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

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Governor

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Dennis H. Treacy
Director

Gerard Seeley, Jr.
Piedmont Regional Director

February 28, 2001

Mr. Lyell Jett
Omega Protein, Inc.
P.O. Box 175
Reedville, Virginia 22539

Re: Omega Protein, Inc., VPDES Permit No. VA0003867and VAR540295

Dear Mr. Jett:

Thank you for your letter dated October 16, 2000 and February 9, 2001 in response to the lab and technical inspections conducted on June 21, 2000 and November 1, 2000 at the referenced facility.

Based on the information supplied in the response letter, the compliance recommendations in the technical inspection report and the laboratory inspection report have been adequately addressed and the facility's laboratory status has been upgraded to **satisfactory.**

If you have any questions, please contact me at (804) 527-5029.

Sincerely,

Camille S. Cook

Camille S. Cook
Environmental Inspector

~~Enclosure~~
Cc: DEQ – OWPS, Kilmarnock office

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

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Robert G. Burnley
Director

Gerard Seeley, Jr.
Piedmont Regional Director

March 20, 2001

Mr. Lyell Jett
General Manager
Omega Protein
P.O. Box 175
Reedville, VA 22539

Registration Number: 40278

Dear Mr. Jett:

On March 15, 2002, the Department of Environmental Quality, Piedmont Regional Office received the Omega Protein's environmental procedures for sandblasting and spray painting marine vessels at the Reedville facility.

According to the sandblasting procedures, Omega Protein will conduct sandblasting of marine vessels in the following manner:

1. Place containment boom in the water around the vessel.
2. Hang an eight-foot tall curtain on line strung from forward house to stern of boat draped down to deck of vessel.
3. Sweep decks of sand daily and properly dispose of sand.
4. Minimize sand blasting if wind direction or speed increase or change direction to prevent sand from drifting to adjacent properties
5. Terminate sandblasting if wind speeds exceed 25 mph.
6. Conduct sandblasting in a manner consistent with the Federal Clean Air Act, the Virginia Pollution Control Law, the BMP of the VPDES permit and regulations promulgated thereunder.
7. Provide DEQ personnel with access at reasonable times to investigate incidents or review records of wind speed and direction.

The Regulations for the Control and Abatement of Air Pollution at Section 9 VAC 5-50-90 (Standard for fugitive dust) require sources to take "reasonable precautions to prevent particulate matter from becoming airborne" when altering or repairing any materials or property. Proper precautions include: installation and use of hoods, fans and fabric filters to enclose and vent the handling of dusty materials. Adequate containment methods shall be employed during sandblasting or similar operations (9 VAC 5-50-90, 3.). A memorandum of understanding between the Department of Environmental Quality's Tidewater Regional Office, Air Section, and the Tidewater shipyards contains eight guidelines on sandblasting including requirements on wind speed and wind direction.

As a part of the sandblasting procedures, Omega Protein **needs to install wind direction and wind speed instruments prior to sandblasting and keep records of this information during the sandblasting.** Also, if Omega uses more than 329,670 pounds of abrasive blast, then Omega needs to apply for an air pollution control permit.

Under 40 CFR 262.11 as incorporated by the Virginia Hazardous Waste Management Regulations, 9 VAC 20-60-262, any person who generates a solid waste must determine if that waste is a hazardous waste. If it is determined that the waste residues are subject to RCRA Subtitle C regulation due to a listing or by exhibiting a characteristic of a hazardous waste, then the regulations require that the generator manage them in accordance with the general requirements for hazardous waste management under RCRA.

Generators should be familiar with the requirements of 40 CFR Part 262 in particular. Regulated hazardous wastes may only be managed at a designated facility permitted to handle RCRA Subtitle C hazardous wastes. If it is determined by the generator that these residues are not subject to RCRA Subtitle C regulation as a hazardous waste, then they would be subject to management as a solid waste in accordance with Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 *et seq.*

As part of your sandblasting procedures, Omega Protein needs to **identify how the waste determination required under 40 CFR 262.11 will be made and the waste management facility where the spent sandblasting grit will be disposed once that determination has been made.**

The Water regulations state that sandblasting boats is an activity that requires permitting under the stormwater permit program. **This activity should be conducted at a site that has the proper water permits.** This activity shall be conducted in

accordance with Best Management Practices (BMPs) at a site that has the proper water permits. In addition to the regulatory measures you listed in the sandblasting procedures, VPDES permit VA0003867 requires the use of a fixed or floating platform as a work surface in order to provide a surface to catch spent abrasive (BMP #3), in conjunction with the shrouding and containment booms. Tarps must be used on the platforms if spacing on the flooring would allow particles to fall through. The platforms must be cleaned at the end of each shift."

In conclusion, Omega Protein needs to meet the following requirements prior to sandblasting and incorporate these requirements into the sandblasting procedures:

1. Install wind direction and wind speed instruments prior to sandblasting and keep records of this information during the sandblasting.

2. Identify how the waste determination required under 40 CFR 262.11 will be made and the management facility where the spent sandblasting grit will be disposed.

3. Conduct the sandblasting at a site that has the proper water permits, in this case, the VPDES permit VA0003867.

Sincerely,

James J. Golden
Deputy Regional Director

CC: J.R. Bell
Curt Linderman
Rob Timmins
James Kyle
Sparky Lisle
Denise Mosca